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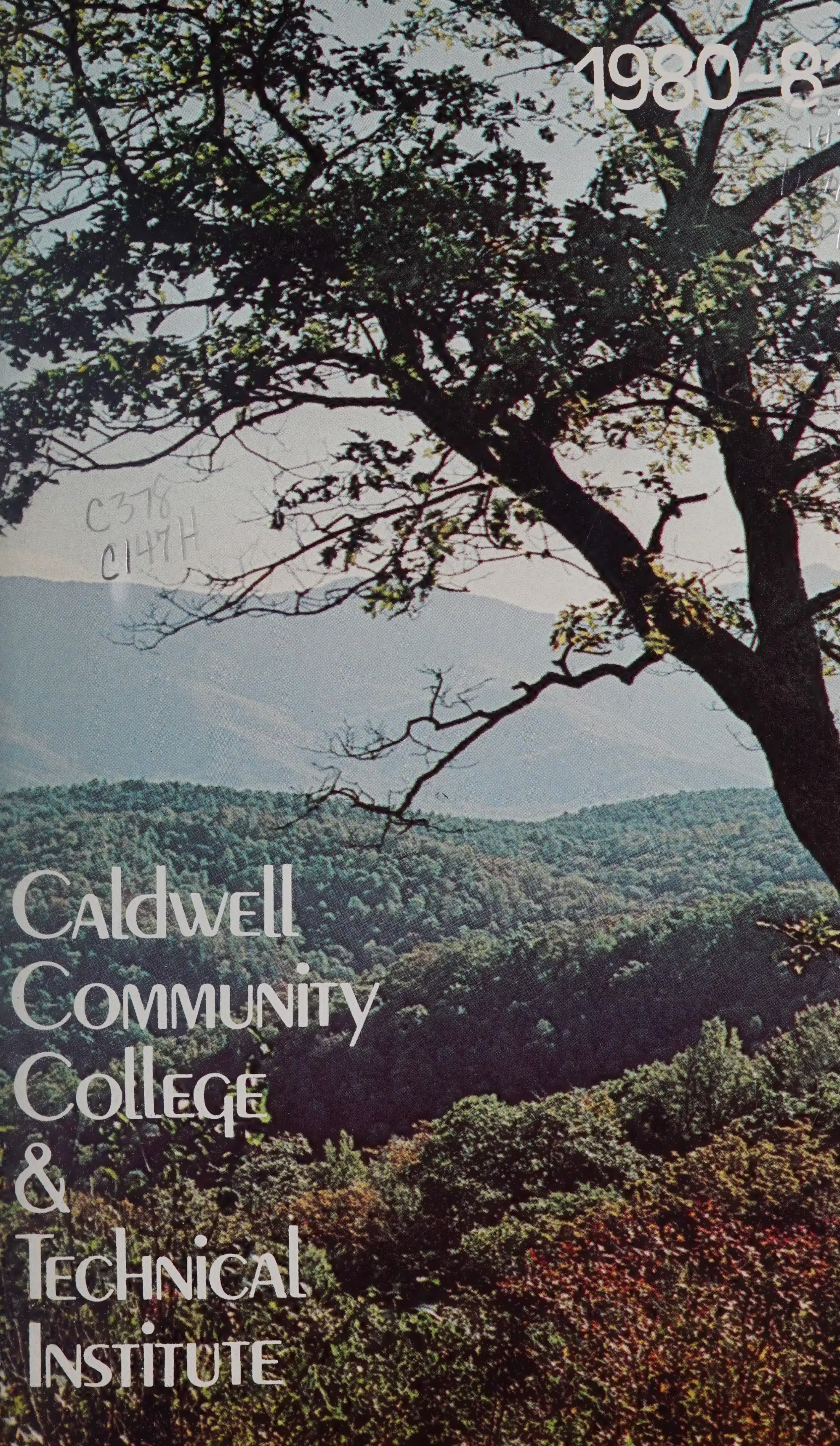

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Caldwell Community College & Technical Institute

Caldwell Community College and Technical Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as and when deemed necessary.

Students having questions not answered in this publication may obtain further information from the Student Affairs Office, Caldwell Community College and Technical Institute.

Caldwell Community College and Technical Institute does not discriminate against any person on grounds of race, creed, color, sex, handicap, or national origin.

CALDWELL COMMUNITY COLLEGE AND TECHNICAL INSTITUTE

CALDWELL COUNTY CAMPUS

Highway 321 South
1000 Hickory Boulevard
Hudson, North Carolina 28638
Telephones 704/728-4323 or 704/396-3311

WATAUGA COUNTY DIVISION

Highway 421 West and 105 By-Pass
Boone, North Carolina 28607
Telephones 704/297-2185 or 704/297-2186

GENERAL CATALOG

Volume IX Number 1
Effective September 1, 1980

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ACADEMIC CALENDAR 1980-81

FALL QUARTER, 1980-81

September 2, Tuesday	Faculty and Staff Orientation
September 3, Wednesday	Registration, Boone Campus Orientation/Registration for New Students, Lenoir
September 4, Thursday	Registration, Lenoir
September 5, Friday	Professional Development Day
September 8, Monday	Classes Begin
November 10, Monday	Early Registration, Boone Campus
November 12, Wednesday	Early Registration, Lenoir Campus
November 19, 20, 21	Exams
November 21, Friday	Fall Quarter Ends

WINTER QUARTER, 1980-81

November 24, Monday	Registration, Boone Campus
November 25, Tuesday	Registration, Lenoir Campus
November 27, 28	Thanksgiving Holidays
December 1, Monday	Classes Begin
December 19, Friday	Christmas Holidays Begin After Last Class
December 30, Tuesday	Professional Development Day
January 5, Monday	Classes Resume
February 9, Monday	Early Registration for Spring Quarter, Boone Campus
February 12, Thursday	Early Registration for Spring Quarter, Lenoir Campus
February 25, 26, 27	Exams
February 27, Friday	Winter Quarter Ends

SPRING QUARTER, 1980-81

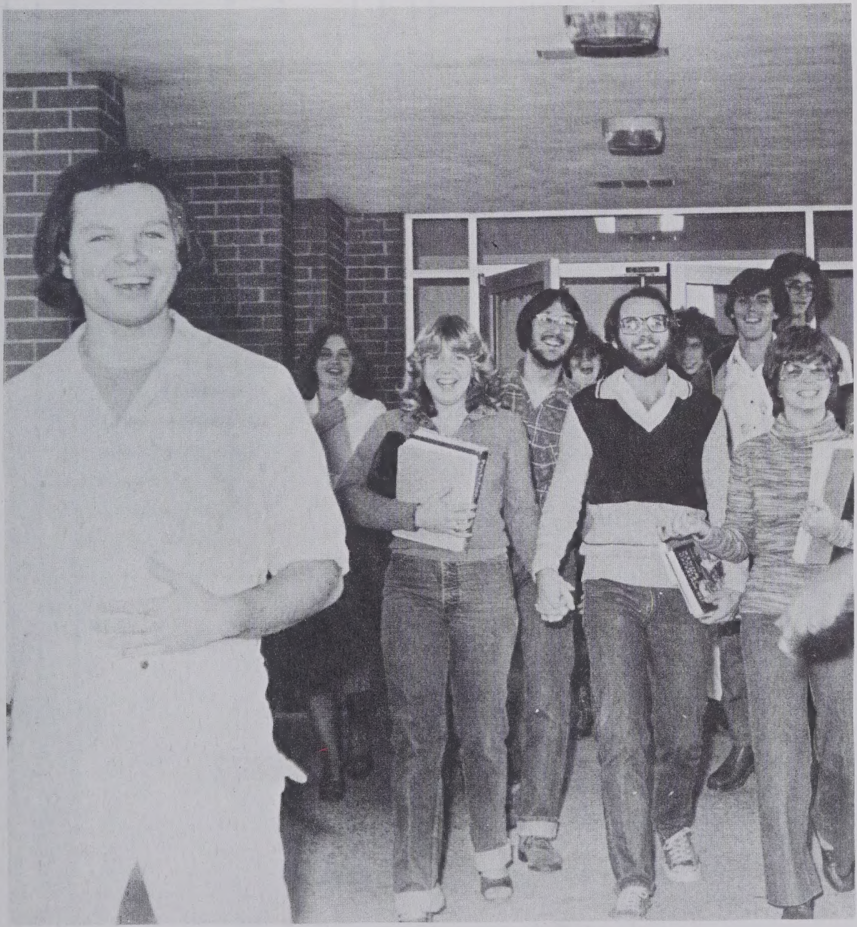
March 3, Tuesday	Registration, Lenoir Campus
March 4, Wednesday	Registration, Boone Campus
March 5, Thursday	Classes Begin
April 17, Friday	Easter Holidays Begin After Last Class
April 24, Friday	Professional Development Day
April 27, Monday	Classes Resume
May 11, Monday	Early Registration for Summer Quarter, Lenoir Campus
May 13, Wednesday	Early Registration for Summer Quarter, Boone Campus
May 25, 26, 27	Exams
May 27, Wednesday	Spring Quarter Ends

SUMMER QUARTER, 1980-81

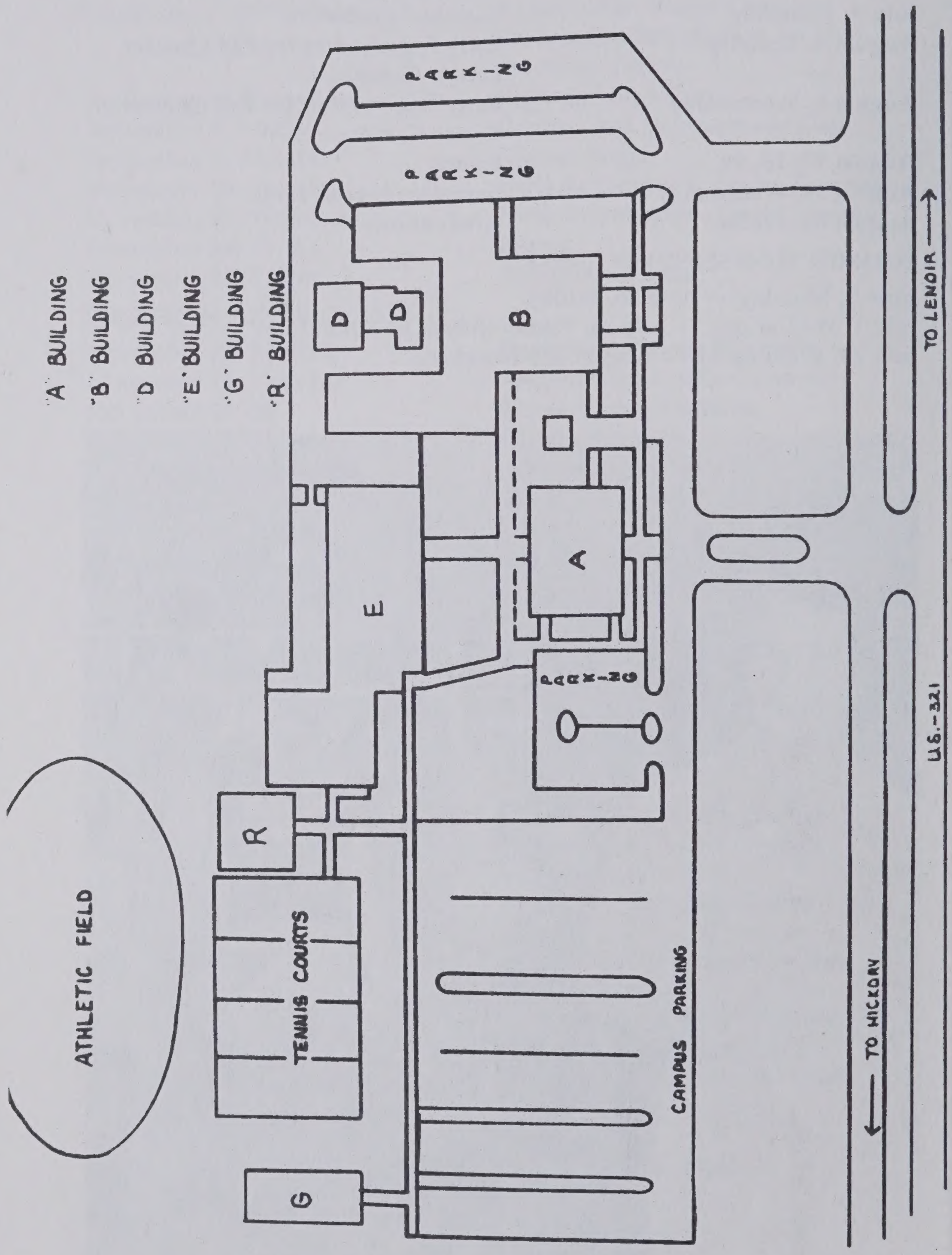
June 3, Wednesday	Registration, Boone Campus
June 4, Thursday	Registration, Lenoir Campus
June 8, Monday	Classes Begin
July 3, Friday	Independence Day Holidays Begin After Last Class
July 9, Thursday	Classes Resume
August 4, Tuesday	Early Registration for Fall Quarter, Lenoir Campus
August 5, Wednesday	Early Registration for Fall Quarter, Boone Campus
August 17, 18, 19	Exams
August 19, Wednesday	Summer Quarter Ends
August 21, Friday	Graduation

SUMMER MINI-SESSIONS, 1980-81

June 8, Monday — June 26, Friday
July 1, Wednesday — July 24, Friday (July 6, 7, 8 holidays)
July 29, Wednesday — August 18, Tuesday



CCC&TI Campus Map



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GENERAL INFORMATION

HISTORY OF THE COLLEGE

The 1963 North Carolina General Assembly passed the Community College Act creating a system of comprehensive community colleges, technical institutes, and industrial education centers in the State under the State Board of Education.

The 1979 General Assembly rewrote the Community College Act and authorized a new board for community colleges, effective in 1981.

In January, 1964, the Caldwell Community College and Technical Institute was tentatively approved by the State Board of Education. On March 28, 1964, the people of Caldwell county approved the college through a bond vote of $600,000 for the purchase of a site and construction of facilities and up to 5 cents tax authorization for operating the college. Final approval by the State Board of Education followed on April 2, 1964.

The first president was selected that fall and began work in November, 1964. A permanent site was selected for the institute in January, 1965. Selection of an architect was made in February, 1965. New facilities were occupied in September, 1967.

On July 1, 1970, Caldwell Technical Institute was authorized by the North Carolina General Assembly through the State Board of Education to offer college transfer courses. Subsequently, Caldwell Technical Institute changed its name to Caldwell Community College and Technical Institute.

A referendum seeking approval of the issuance of $800,000 in bonds by Caldwell County was proposed and voted upon on December 7, 1971. The local money was to match a federal grant of $799,306 under the Appalachian Region Act. This referendum was passed by more than a 2 to 1 majority. In 1973, the institution received $500,000 of state construction funds from an appropriation by the North Carolina General Assembly. These funds enabled the trustees to increase the size of the college by about 77,000 square feet. The new buildings were occupied during the 1974-75 school year.

In 1979 the Caldwell County Commissioners authorized an expenditure of $600,000 to match a proposed Appalachian Regional Grant of $400,000 to construct additional facilities. The added 25,000 square feet will make a total of 160,000 square feet of building space at the institution.

In September, 1973, Caldwell Community College and Technical Institute, Watauga Division was established to provide limited credit and more extensive noncredit offerings to the citizens of Watauga County in various locations throughout the county. Appalachian State University permits CCC & TI Watauga Division students to use the university's library facilities.

The annual enrollment growth has steadily increased since the college's beginning in 1964. By the fall of 1978, approximately 1356 full-time equivalent (FTE) students were enrolled in one-year diploma and two-year degree programs and 1473 FTE in continuing education programs for a total full-time equivalent enrollment of 2851. To teach these students and provide the required support and other services, the institution employs some 125 full-time persons and approximately 545 part-time persons each year.

PURPOSE AND OBJECTIVES

Caldwell Community College and Technical Institute, serving primarily Caldwell and surrounding counties and operating within the legal framework set by the North Carolina General Assembly, opens its doors to any adult desiring to learn. All students are offered the opportunity and are encouraged to develop their intellectual, social, occupational, civic, cultural, and physical potential. The college is committed to providing quality, inexpensive, continuing education opportunities to meet the needs of adults at facilities located within commuting distance.

In keeping with the general purpose of Caldwell Community College and Technical Institute, the board of trustees, the staff, and the faculty have adopted certain specific objectives. These are to:

Provide effective instruction to all who enroll.

Provide the opportunity for individuals to complete elementary or secondary school by offering adult basic education and high school equivalency programs.

Provide a variety of one-year vocational, two-year technical, and two-year college transfer programs that reflect the changing needs of business, industry, and professional and public services.

Provide general interest courses that meet adult education and community service needs.

Provide guidance and counseling services to assist students in developing an understanding of themselves.

Provide cultural programs and educational services for community enrichment.

Provide assistance and information to stimulate interest in education throughout the community.

LOCATION

The Caldwell Community College and Technical Institute is located on a 78-acre tract of land in Hudson, North Carolina. Since the college is on Highway 321, it is accessible to the population centers of Lenoir (5 miles), Granite Falls (5 miles), and Hickory (10 miles).

The Watauga instruction facility and administrative offices are located at Highway 421 W. and 105 By-Pass in Boone, North Carolina.

ACCREDITATION

Caldwell Community College and Technical Institute is regionally accredited by the Southern Association of Colleges and Schools and by the North Carolina State Board of Education.

Diploma, associate in applied science, and associate in arts or science programs have been approved by the North Carolina Department of Community Colleges and the State Board of Education.

The radiologic technology program is accredited by the Council on Allied Health, Education and Accreditation of the American Medical Association. The nursing program is approved by the North Carolina State Board of Nursing.

ADMISSIONS

GENERAL ADMISSIONS REQUIREMENTS

Caldwell Community College and Technical Institute is a co-educational college open to any individual meeting the admission requirements for the particular course or area in which that individual wishes to enroll. These requirements vary with the areas of study offered by the college.

Students wishing to enroll in a curriculum program at Caldwell Community College and Technical Institute should contact the student affairs office for application forms, interview appointments, and dates for placement testing.

All technical and college transfer programs require high school graduation or the equivalent. Students enrolled in the vocational programs must be 18 years of age or high school graduates.

Applicants to Caldwell Community College and Technical Institute should:

1. Secure application forms and make application for admission.
2. Request that a transcript of past high school and college work be submitted to the student affairs office.
3. Complete the required placement tests for specific programs.
4. Have an interview with a member of the student affairs department or a faculty advisor.

PLACEMENT TESTS

English, math and reading placement tests are required for all college transfer and technical programs. Cognitive Style Mapping is also recommended for all full-time students. Radiologic technology, nuclear medicine, nursing, recreational leadership, and early childhood education require specific tests for admission. Reading placement is required for auto body, auto mechanics, cosmetology, machine shop, and welding in the vocational programs. No other placement tests are required of students in the vocational programs.

PROVISIONAL STUDENTS

A student applying too late to complete pre-entrance requirements may be permitted to enter the college as a provisional student. Provisional students must complete all requirements within the first quarter of attendance.

SPECIAL CREDIT STUDENTS

Caldwell Community College and Technical Institute recognizes that some adults who are not pursuing a degree or diploma may wish to register for an occasional course. Special credit students may register by completing the proper application forms. A student may remain in this category as a special student until twelve quarter hours of credit are completed or until the student transfers into a particular program. The student must then complete the proper placement testing and submit a school transcript.

FOREIGN STUDENTS

Caldwell Community College and Technical Institute is authorized by the U.S. Department of Naturalization and Immigration to admit foreign students. This permission was granted on July 12, 1966, with authorization number WAS 214-1562.

Foreign students must meet the same admission requirements as all other students. Included with the application should be a transcript from an authorized school or university. If this document is not in English, it should be translated and certified before being sent to CCC & TI. The applicant should also present a statement from a qualified authority indicating sufficient proficiency in English to cope with studies at CCC & TI.

VISITING STUDENTS

Students who are working toward a degree in another institution may register for courses at Caldwell Community College and Technical Institute. The student must complete the application forms and submit a letter from the institution from which that student expects to graduate indicating student status. It is the responsibility of the visiting student to request that transcript(s) of work taken at CCC & TI be sent to the "home" institution.

TRANSFER STUDENTS

Students may be admitted with advanced standing by transfer from technical institutes, colleges, or universities. If admitted, the prospective student's record will be evaluated by the registrar to determine the amount of credit that can be transferred and applied toward the program in which the applicant desires advanced standing. Courses in which a student has made a grade of "D" may be transferred to Caldwell Community College and Technical Institute if the overall average of the courses transferred is 2.0 or better.

POLICY ON ADMISSION OF HIGH SCHOOL STUDENTS

An applicant for admission to a course or courses at Caldwell Community College and Technical Institute who is neither a high school graduate, nor high school dropout, nor eighteen years of age, but who is concurrently registered (or on vacation) as a student in one of the two upper grades of high school, may be admitted, subject to the discretion of the college administration and taking into consideration the constraints of facilities and funds available; provided that such applicant's admission to each course shall require written approval or recommendation of the superintendent or other designated executive or administrative officer having responsibility in or over the high school in which the student is enrolled while attending Caldwell Community College and Technical Institute.

An applicant not attending high school who is between the ages of sixteen and eighteen years and who has special educational needs may be admitted to appropriate courses or programs provided:

(1) That the applicant has left the public schools no less than six calendar months prior to the last day of regular registration of the quarter; and

(2) That the application is supported by a notarized petition of the applicant's parent, legal guardian, or other person or agency having legal custody and control, which petition certifies the place of residence and date of birth of the applicant, the parental or other appropriate legal relationship of the petitioner to the applicant, and the date on which the applicant left the public schools. However, all or any part of the six-month waiting period may be waived by the superintendent of the public schools of the administrative unit in which the applicant resides; and

(3) That such admission will not pre-empt institution facilities and staff to such an extent as to render the institution unable to admit all applicants who have graduated from high school or who are eighteen years of age or older.

SUSPENSION, DISMISSAL, AND READMISSION

Students will be expected to conduct themselves at all times as individuals of prudence and maturity. The rights and feelings of others will be respected. Students shall demonstrate a high regard for school facilities and property and for the personal property of others.

School regulations which serve to control such activities as vehicular traffic and parking, smoking, and other aspects of personal conduct must be observed. Students may be suspended or dismissed for conduct which is considered incompatible with standards of propriety and good judgment.

Readmission of dismissed students at a subsequent session will be at the discretion of the college. Students should refer to the student handbook for details on disciplinary procedures and regulations pertaining to suspension and expulsion.

A student dismissed from the college for any reason can petition the admissions committee to consider him for readmission after one quarter's absence following dismissal.

ACADEMIC STANDARDS

GRADING SYSTEM

Official grades are issued for each student at the end of each quarter. Students who lack passing averages at mid-quarter should schedule a conference with the instructor and/or their faculty advisor.

Students enrolled in curriculum program courses will be graded by the letter-grade system shown below and assigned a grade point equivalent in quality points for each quarter scheduled.

Numerical Equivalent	**Letter Grade**	**Grade Point Equivalent**
93-100	A — Excellent	4 quality points each quarter hour
85-92	B — Good	3 quality points each quarter hour
77-84	C — Average	2 quality points each quarter hour
70-76	D — Below Average	1 quality point each quarter hour
Below 70	F — Unsatisfactory	0 quality points each quarter hour

I — Indicates failure to complete certain course requirements because of extenuating circumstances.
W — Student withdrew from the course.
Y — Indicates no grade or credit given.
P — Pass — No quality points given.

GRADES OF "I" (INCOMPLETE)

An "I" grade in a course indicates the student has not met (for whatever reasons) the minimum objectives of the course set up by the instructor and/or the departments involved; however, the student is making satisfactory progress at the time the grade is given. This "I" may be removed in one of two ways:

1. Re-registering for the course and completing all requirements for the course;

2. Completing the requirements for the course as stipulated in a written agreement drawn by the faculty member involved and signed by the student and faculty members. The agreement will specify the work to be completed and the period of time within which a student may complete the work and, in no case, will that period of time exceed one year. Copies of this agreement should be sent to student affairs and the student's advisor. The student shall be given a copy and the faculty member should retain a copy for his/her files.

Veterans should check with the veterans coordinator in student affairs upon receiving an "I" grade and before attempting to re-register for the course.

WITHDRAWING FROM COURSES AND/OR SCHOOL

Students who withdraw from a class or from the college should first consult with their academic advisor and then contact the registrar in student affairs. Failure to make these contacts and to withdraw officially from a class or from the college prevents college personnel from offering assistance to the student and increases the chances of errors in recording of official grades and records.

A student may withdraw from a course and receive a grade of "W" up until fifty percent of the class contact hours have elapsed. The grade of "W" will have no bearing on the grade point average. After the midpoint, or after fifty percent of the class contact hours have elapsed, a grade of "W" may not be given on a student-initiated drop petition. However, an instructor may initiate a drop petition after the midpoint and assign a grade of "W".

Veterans should check with the veterans coordinator in student affairs for specific VA regulations concerning withdrawals and class repeats.

COURSES REPEATED FOR CREDIT

When a course is repeated, the last grade is recorded as the final grade for the course, and only the last hours attempted are counted in determining the student's grade point average.

AUDITING

A student who audits a course pays the regular registration and tuition fees. Auditors do not take tests, examinations, or receive grades or credit and cannot later change the "audit" to credit.

Any student who wishes to audit a physical education course must have the department chairman's approval.

PROFICIENCY EXAMINATIONS

Advanced placement is offered to those students who, because of their demonstrated abilities, are qualified to accelerate their studies. To obtain advanced placement, the student may take a proficiency examination in a subject when the student feels qualified to do so. Application for such an examination must originate with the registrar. If the student has registered for the course and is on the class roll at the time of the proficiency exam, final grades will be treated as a regular course (A,B,C,D,F). If the examination is given prior to registration for the course, the grade will be either P — passed of F — failed. Only hours passed will be recorded on the transcript.

Caldwell Community College and Technical Institute offers college credit for the subject area examinations included in the College Level Examination Program (CLEP). Credit will be granted towards a degree following a student's registration and enrollment.

INDIVIDUAL STUDY (IDS)

Eligible students may apply to take a course on an individual study basis when it is listed in the school catalog but is not being offered during the designated quarter. Students may apply at any time through the student affairs office. Permission must be obtained from the department chairman responsible for the course.

INDEPENDENT STUDY (IST)

Eligible students may wish to pursue the study of a particular subject which is not listed in the school catalog. Under this program, the student designs and pursues a project with an instructor serving as consultant. For information on independent study, the student should consult with the student affairs office. Permission must be obtained from the chairman of the department in which the study will be done.

CLASS DESIGNATION

Students completing 45 quarter hours of course work will be listed as sophomores.

FACULTY ADVISOR SYSTEM

The faculty advisor program is a cooperative effort of the faculty and the student affairs office. At the time of enrollment, each student is assigned an advisor who will assist that student in planning programs and selecting courses so appropriate progress will be realized. Counselors serve as advisors to special credit students. Advisor/advisee conferences are held at least once each quarter. Specific dates for these conferences, along with additional instructions, are listed in the current student handbook.

SCHEDULE CHANGES

Change of student schedule after registration has been completed will be made only with permission of the registrar, advisor, and instructor.

ACADEMIC PROBATION

Caldwell Community College and Technical Institute considers the following accumulative grade point average for total hours attempted as evidence of satisfactory academic progress at the college:

Quarter Hours Attempted	Grade Points Awarded
12	1.00
24	1.25
36	1.50
48	1.75
Graduation*	2.00

All students failing to maintain the average above will be placed on academic probation for one quarter. The student affairs office will notify students by letter of probationary status and will advise those students to make an appointment with their academic advisor. The advisor will explore various options with the student, including the following:

a. reduction of course load
b. referral to student affairs for individual counseling
c. tutoring assistance
d. attending seminars on effective study techniques
e. guidance into another curriculum or program
f. enrolling in additional preparatory courses
g. reduction of nonscholastic activities

Any curricular student on probation will remain on probation until that student's cumulative GPA reaches the standards of progress listed above.

Students receiving VA benefits should check with the veterans coordinator for VA regulations concerning probation, progress, and benefits.

ADVISED STATUS

Any student, following the completion of one quarter of study at the college level, who fails to meet the grade point average listed below will be considered on "advised status." This is not academic probation and does not involve a student's accumulative grade point average. It is a status based on a student's grade point average for the preceding quarter. It is hoped that appropriate action taken by the student and that student's academic advisor will prevent the student's being placed on academic probation in the future.

Quarter Hours Attempted to Date	Grade Point Average for the Preceding Quarter
36 and under	1.5
37-72	1.75
73 and over	2.00

Any student on advised status will be notified by letter of such status by student affairs. The letter will advise the student to make an appointment with the academic advisor so that the following options may be explored:

a. reduction of course load
b. referral to student affairs for individual counseling
c. tutoring assistance
d. attending seminars on effective study techniques
e. guidance into another curriculum or program
f. reduction of nonscholastic activities

COURSE LOAD

Students enrolled for 12 or more credit hours are classified as full-time students. Those taking less are classified as part-time. Normal course load will vary from one curriculum to another and should be carefully planned with the advisors. Students may enroll for a maximum load depending upon their capabilities as determined by their advisors. A normal course load is outlined by departments in this catalog.

STUDENT TUTORIAL ASSISTANCE

Special assistance is available for students in all areas of study at the college. Tutors may be assigned to students at no cost to the student. To request a tutor, students should contact the course instructor.

Instructors are also available for conferences at regularly scheduled office hours or by appointment. It is the responsibility of the student to seek extra help when needed.

DEGREE/DIPLOMA REQUIREMENTS

All students should refer to the college catalog or to the program check sheets for information about the courses required for graduation in the various areas of study. By conferring with the advisors when questions arise and by following the check sheets, students will tend to be more accurate in the proper selection of courses. Check sheets are recommended for all students and are required for all veterans.

REQUIREMENTS FOR GRADUATION

A student is eligible for graduation when the following requirements have been completed:

1. The student must file an application for a degree/diploma during the first two weeks of the last quarter the student is in attendance.
2. All the requirements for a diploma/degree in a particular program must be satisfactorily completed.
3. The student must have a quality point average of 2.0.
4. The student must take care of all financial obligations to Caldwell Community College and Technical Institute.

Graduation exercises will be held at the end of the summer quarter. All candidates for graduation are expected to be in attendance.

RESIDENCY REQUIREMENTS FOR GRADUATION

Students transferring from other schools to Caldwell Community College and Technical Institute must complete twenty-five percent of their course requirements to CCC & TI in order to qualify for graduation.

HONORS

Dean's List — At the end of each quarter, an academic honor list will be published of all students who complete 10 or more credit hours and who have a quality point average of 3.25 or above.

Graduation With Honors — A graduating student who has earned an overall quality point average of 3.50 or better during studies at Caldwell Community College and Technical Institute will receive the diploma or degree "with honors."

RESTRICTIONS ON CLASS ADMISSIONS

No person may attend classes unless the registration procedure has been completed.

ATTENDANCE POLICY

At the request of the faculty senate the institutional attendance policy has been modified. The new statement follows:

Students are expected to attend every class meeting. However, it is recognized that occasional absences may be necessary. A student is responsible for any work missed. At a minimum, a student will be dropped from class membership after the fifth consecutive absence. Beyond this, each department will formulate its own attendance policies in accordance with the varying requirements of the different curriculums. These requirements will be published in the student handbook and/or announced at the beginning of each course.

TRANSCRIPTS OF CREDIT

Transcripts of credit will be supplied to all students and former students requesting them, subject to certain conditions. Individuals must have made satisfactory financial arrangements to care for all amounts due the college.

CONFIDENTIALITY OF STUDENT RECORDS

Caldwell Community College and Technical Institute supports the Family Educational Rights and Privacy Act of 1974 which outlines the rights and privacies afforded each student. Information on access to student records is found in the student handbook.

CATALOG REQUIREMENTS

Candidates for the diploma or degree must meet the requirements as outlined in the catalog for the year of their first enrollment or for any subsequent bulletin under which work is taken, but in all cases must complete work for their diploma or degree within 10 years from the date of the catalog selected.

TUITION AND FEES

POLICIES REGARDING STUDENT EXPENSES

All tuition and required fees are due and payable at the time of the student's registration. The controller or a delegated representative shall have the authority to permit deferred payments of tuition and fees in situations where it is determined that a student is undergoing emergency financial conditions. The student must first see the financial aid officer who will make recommendations to the controller.

All check and money orders must be made payable to Caldwell Community College and Technical Institute. No student will be allowed to graduate, to receive grades or transcripts, or to register for a new quarter if said student has an unpaid balance due from any previous quarter. Exceptions will be made only if such an outstanding balance has been guaranteed in writing by a financially responsible person or organization.

In the event a student writes a check with insufficient funds to the college, the college will no longer accept checks from that individual.

TUITION

Caldwell Community College and Technical Institute offers educational opportunity at minimum cost to the student. Tuition fees are set by the State Board of Education and are subject to change without notice. Current basic fees to be paid by students upon enrollment are as follows:

In-state Students	
12 quarter hours or more (full-time)	$39.00
Part-time students per quarter hour	3.25
Out-of-state Students	
12 credit hours or more (full-time)	$198.00
Part-time students per quarter hour	16.50

Tuition for Students Enrolled in More than One Institution

Where a student desires to enroll for the same quarter at two or more institutions of the community college system, the total amount of tuition shall not exceed the maximum tuition. When enrolled at the second institution, the student must produce his/her validated registration receipt in order to waive any payment of tuition. Activity fees will be charged. It is the student's responsibility to see that transcripts are sent to the "home" institution at the completion of the quarter.

Tuition for Older Citizens

North Carolina residents sixty-five years of age or older shall be exempt from the payment of curriculum tuition and activity fees.

Tuition for Inmates

Prison or correctional units inmates will be exempt from the payment of tuition or activity fees.

OTHER CHARGES

Student Activity Fees

Curriculum students will be charged $1 per course activity fee up to a maximum of $5 per quarter. This fee is not refundable unless there is an institution error.

Accident Insurance

All CCC & TI students and employees **must** enroll in a low cost accident insurance program available through the college or sign a waiver prepared by the college which states that the student or employee has comparable insurance coverage. The waiver also states that the student or employee will assume personal responsibility for all medical costs incurred in case of accident or emergency, including ambulance and emergency room costs.

The policy offered will cover enrollees while traveling directly to the college; during hours of college operation; while traveling directly from the college to home; and while participating in college-sponsored activities.

Insurance coverage is from September 1 through August 30 with no refunds of unused coverage. Students who begin classes in the winter quarter or spring quarter must still pay the full amount. The cost of the policy is $5 per year.

Malpractice Insurance

Special malpractice insurance is required for nursing, radiology, and nuclear medicine students. Coverage charges may be prorated. This fee is not refundable.

Books and Supplies

Students are required to buy the necessary textbooks and supplies prescribed in the curriculum area they are entering. These vary according to different courses taken by the students. An average expenditure of $75 can be expected by the new fall quarter students for books. Normal school supplies are sold during the regular bookstore hours.

Graduation Fees

A graduation fee of $6 for a diploma/degree is payable at the beginning of the quarter in which the student completes his/her program. This fee is not refundable.

Late Registration Fee

A late registration fee of $1 per course, maximum $5, will be assessed any student registering on or after the first day of classes. The late registration fee is not refundable unless there is an institution error.

TUITION REFUND POLICY

Tuition refunds for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw from the institution for unavoidable reasons. In such cases, two-thirds of the student's tuition may be refunded if the student withdraws within ten calendar days from the first day of classes as published in the school calendar. Tuition refunds will not be considered for tuition of $5 or less unless a course or curriculum fails to materialize. In such cases, all the student's tuition shall be refunded. Refunds may be calculated to the nearest whole dollar.

If a student is compelled to withdraw from the college during the first ten calendar days for reasons which are, in the judgment of the college, unavoidable, the student may be allowed full credit for the unrefunded tuition and fees if application for readmission is made during any of the next four calendar quarters and a petition in writing is made to be allowed such credit.

FEES NOT REFUNDABLE (Unless Institutional Error):

Insurance payment
Activity fee
Special course fee
Graduation fee
Ring deposit
Invitation and calling card cost

Only the director of counseling or the registrar will be authorized to recommend a tuition refund. Student appeals on the refund issue will be made to the vice president of administration. In all cases, the vice president of administration will make the final decision as to whether a refund is due and, if so, the amount due.

ACCOUNTS

No transcripts, certificates, diplomas, or degrees will be issued, and students will not be permitted to complete registration until accounts are satisfactory to the business office, dean of students, financial aid office, and the learning resource center.

RESIDENCE STATUS FOR TUITION PAYMENT

General

The tuition charge for legal residents of North Carolina is less than for nonresidents. To qualify for in-state tuition, a legal resident must have maintained a domicile (legal residence) in North Carolina for at least the twelve months preceding the date of first enrollment or re-enrollment in an institution of higher education in this state. Student status in an institution of higher education in this state shall not constitute eligibility for residence to qualify said student for in-state tuition.

The burden of establishing facts which justify classification of a student as a resident entitled to in-state tutition rates is on the applicant for such classification.

Minors

A minor is any person who has not reached the age of eighteen years. The legal residence of a person under eighteen years of age at the time of first enrollment in an institution of higher education in this state is that of the parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the legal residence of the father will control unless custody of the minor has been awarded by court to the mother or to a legal guardian other than a parent. No claim of residence in North Carolina based upon residence of a guardian in North Carolina will be considered if either parent is living unless the action of the court appointing the guardian antedates the student's first enrollment in a North Carolina institution of higher education by at least twelve months.

Adults

An adult is any person who has reached the age of eighteen years. Persons eighteen or more years of age at the time of first enrollment in an institution of higher education are responsible for establishing their own domicile. Persons reaching the age of eighteen, whose parents are and have been domiciled in North Carolina for at least the preceding twelve months, retain North Carolina residence for tuition payment purposes until domicile in North Carolina is abandoned. If North Carolina residence is abandoned by an adult, maintenance of North Carolina domicile for twelve months as a non-student is required to regain in-state status for tuition payment purposes.

Married Students

The legal residence of either husband or wife may be used for residence purposes to the advantage of each member of the family. Married couples should check with the residence classification officer at the college.

Military Personnel

No person shall lose in-state resident status by serving in the Armed Forces outside of the State of North Carolina. A member of the Armed Forces, the spouse, and the children may obtain in-state residence status after maintaining their domicile in North Carolina for at least the twelve months preceding enrollment or re-enrollment in an institution of higher education in this state.

Aliens

Aliens lawfully admitted to the United States for permanent residence may establish North Carolina residence in the same manner as any other nonresident.

Property and Taxes

Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate.

Change of Status

The residence status of any student is determined as of the time of the student's first enrollment in an institution of higher education in North Carolina except:

(a) In the case of a nonresident student at the time of first enrollment who has subsequently maintained domicile as a non-student for at least twelve consecutive months and

(b) In the case of a resident who abandons the legal residence in North Carolina.

In either case, the appropriate tuition rate will become effective at the beginning of the first subsequent term enrolled.

Responsibility of Students

Any student or prospective student in doubt concerning residence status must bear the responsibility for securing a ruling by stating his/her case in writing to the registrar. The student who, due to subsequent events, becomes eligible for a change in classification, whether from out-of-state to in-state or the reverse, has the responsibility of immediately informing the dean of student affairs of the circumstance in writing. Failure to give complete and correct information regarding residence constitutes grounds for disciplinary action.

SPECIAL PROGRAMS

PRIME TIME
A PERSONAL GROWTH PROGRAM FOR WOMEN*

The college will offer a program known as PRIME TIME each fall quarter for the mature woman who wishes to return to school for self-improvement or for career training.

Three general courses will be scheduled between the hours of 10:00 a.m. and 2:00 p.m. on Mondays, Wednesdays, and Fridays. One of the courses will deal with life planning skills.

All students will remain together for three courses which cover an eleven-week period and end near the Thanksgiving holidays.

Prime Time is being offered as a one quarter introduction to the opportunities at the college and is scheduled so as to allow the woman who has school-aged children to come to class after the public school day begins and return home before it ends. Attending class only three days per week instead of five provides the new student a gradual entry into a new time schedule.

Persons who complete the Prime Time block of courses will receive eight hours of college credit which can be applied to many of the technical and college transfer curricula at the college.

After the program is completed, the student who wishes to return the following quarter has the option of choosing one of the regular career programs or of selecting random courses which might interest her.

Students who enroll must be high school graduates or hold the high school equivalency diploma. A minimum enrollment of twelve students will be necessary to insure that the program will be held.

*Although Prime Time is especially for women, men will be welcomed in the program.

VETERANS

Curriculum courses offered by the institution are approved for veterans benefits. Any veteran or dependent who is eligible under provisions of Chapters 34 and 35, Title 38 and Public Law 894 and who has completed the admissions requirements for the school and has a transcript(s) of previous work on file can apply for educational assistance. Such application can be made in the office of the veterans coordinator and must include a copy of the veteran's discharge (DD-214). At registration, both veterans and dependents under Chapters 34, 35 are responsible directly to the school for payment of all costs. ALL WHO RECEIVE VETERANS FINANCIAL ASSISTANCE are further responsible for becoming familiar with specific VA regulations concerning monthly attendance reports, satisfactory conduct and academic progress requirements, and the use of the curriculum check sheet to insure appropriate selection of courses. This information is available from the coordinator.

Children of disabled or deceased veterans may be eligible to receive financial assistance for tuition and fees. For information regarding eligibility, students should contact the local veterans service officer.

STANDARDS OF PROGRESS, ATTENDANCE, AND CONDUCT FOR VETERANS AND OTHER ELIGIBLE PERSONS CERTIFIED TO THE VETERANS ADMINISTRATION FOR EDUCATIONAL PAYMENTS UNDER PUBLIC LAW 93-508

(Adapted for the catalog; copies of original document are available from veterans coordinator)

1. Determination of academic progress: All students enrolled in a credit program will be graded by the following letter-grade system and assigned a grade point equivalent.

Numerical Equivalent	Letter Grade	Grade Point Average
93-100	A-Excellent	4.00
85-92	B-Good	3.00
77-84	C-Average	2.00
70-76	D-Below Average	1.00
Below 70	F-Unsatisfactory	0

I-Indicates failure to complete certain course requirements

W-Student withdrew from course

A veteran may not a second time be certified for pay purposes for any course on which he/she has made an "I" grade. (Also, should the "I" not be completed in a given time — coordinator will have details — money received for the course during the quarter will be considered as overpayment until such time as credit grade is received. Coordinator must be notified of the grade change so that appropriate forms can be sent to VA.) Repeat of the "F" grade will influence the overall GPA for veterans since both the original grade and the repeat must be counted.

The following accumulated grade point average for total hours attempted is considered evidence of satisfactory academic progress:

Quarter Hours Attempted to Date	**Grade Points Awarded**
12	1.00
24	1.25
36	1.50
48	1.75
Graduation*	2.00

*Graduation will be determined (1) when the veteran completes all requirements and is in fact eligible for the diploma/degree with 2.00 GPA or better or (2) when the veteran completes the number of hours for his/her program and cannot graduate because the GPA is below 2.00. Should this occur, the veteran will be terminated for benefits (he/she may remain in school) until such time as the VA sees fit to approve recertification. An accumulation of 13 credit hours of "F" grades will result in termination of benefits until VA approves re-enrollment.

Each veteran's grades are checked each quarter. Any who fail to maintain the above averages will be placed on academic probation for the next quarter of attendance and will be notified by mail of the probation. Should a notice not reach a veteran, this in no way cancels the probation period. Once grades are out, each student should be aware of his/her academic progress or lack of it.

Veterans who make an "I" grade on 100% of their courses in a given quarter or withdraw from all courses will be considered in academic difficulty and will be placed on probation for the next quarter of attendance.

Veterans with satisfactory progress who show a marked decline in academic achievement in a following quarter will be placed on probation for the next quarter without regard to the overall GPA. The higher average of previous work will not be computed with the low average — the quarter of marked decline will stand alone.

At the end of the one quarter probation period, all who then meet the satisfactory progress test will be removed from probation. Those who do not meet the requirements will be terminated, for pay purposes, to the regional VA office; he/she may be re-instated for benefits (1) after appropriate academic progress is made and/or (2) after VA counseling.

Should academic progress be unsatisfactory at the time a veteran requests a "change of program," benefits will be interrupted until VA counseling can be scheduled and approval reaches the school.

The official copy of grades each quarter is kept in the registrar's office; a second copy is mailed to each student and a third copy is provided to the veterans coordinator for the purpose of determining progress.

Neither probation nor termination of educational benefits affects the veteran's eligibility to continue enrollment at CCC & TI.

2. Attendance: The school operates within the framework of the NC Department of Community College's attendance policy; therefore, it makes no provision for free "cuts." Each instructor decides when the excessive absence point has been reached and provides the registrar with the names of those students involved. Instructors can initiate withdrawal forms for any student who, in their determination, has jeopardized his/her chance for passing the course because of poor attendance.

All veterans, including those working on the high school equivalency, are required to file instructor-signed monthly attendance sheets showing absences. The sheet must be filed with the coordinator no later than the 10th calendar day of the following month.

All absences of veterans enrolled in either vocational or high school equivalency programs are reported to the VA. ("Absences" include both days missed for personal reasons as well as those days missed because the institution is closed for quarter breaks, etc. The coordinator has a list of the non-operating days that are considered as absences.)

Veterans will be terminated to the regional VA office by the coordinator for the following attendance-related reasons: (1) Excessive absences resulting in instructor initiated withdrawal, (2) veteran's official withdrawal, (3) registrar's report that veteran is no longer attending or (4) veteran's failure to provide the attendance sheet by date stated above.

Veterans who are terminated for absences during any part of the term may not be re-instated for pay purposes until the beginning of the next term unless there are extenuating circumstances beyond the control of the veteran.

Dropping classes after the quarter begins will often result in either a revision of certification or termination of benefits. Any change in hours MUST be reported to both the registrar and the coordinator.

3. Determination of appropriate courses: Only courses listed in the catalog under the specific curriculum can be certified to the VA. Each veteran must file a check sheet with the coordinator who lists the quarter the course is taken and later adds the grade received. All veterans must check with the coordinator at each registration so that certifications, as well as the check sheets, can be updated.
4. Conduct: The same conduct regulations apply to all students. All behavior which is prohibited by federal, state, and local laws is prohibited on campus. Violations could result in dismissal of any student from school and in termination of benefits for veterans. Re-instatement of benefits would depend upon (1) re-admittance of person to the school, and (2) recommendation of the VA after counseling.
5. Advancement lab requirements: When a veteran enrolls in the high school equivalency program, he/she is informed (1) that the coordinator must have on file a transcript of previous work prior to certification, (2) that a weekly progress review will be made and (3) that, based upon placement inventories, grade completed in public school, time elapsed since last school, etc., he/she should complete the work in a certain period of time. At the first sign of unsatisfactory progress, the veteran is scheduled for a conference with the lab advisor. Should unsatisfactory progress continue after several such conferences, the advisor will notify the coordinator

who will terminate benefits until such time as a sufficient percent of acceptable work is completed to put the veteran back on the time schedule. The probation period is considered to be the time between the first unsatisfactory progress conference and the time the coordinator is notified.

Unsatisfactory attendance is determined by the lab advisor. Written notice, along with last date of attendance, is sent to the coodinator who terminates the veteran to the VA.

All veterans attending the advancement lab are advised to report for the hours scheduled on their certifications or run the risk of being counted absent even though they may be making up time at other hours. The coordinator can supply additional information on this matter.

CCC & TI is currently approved for a maximum of 900 hours for the completion of the high school diploma. This does not guarantee that all persons will be allowed the full 900 hours. What it does mean is that each will have the length of time needed up to that number of hours.

Official institutional credit class schedules are published four times per year for the degree/diploma programs. The advancement lab schedule for the high school equivalency program remains constant: the lab is open Monday through Thursday, except for school holiday, from 8:00 a.m. — 9:00 p.m. and on Friday from 8:00 a.m. — 5:00 p.m. Persons wishing to enroll in the equivalency program may do so at any time.

NOTE: Veterans need to be aware that VA regulations are constantly being revised and expanded. The office of the veterans coordinator will attempt to keep all information current and will have updated material available for distribution.

FINANCIAL AID FOR STUDENTS

GENERAL INFORMATION

Caldwell Community College and Technical Institute encourages prospective students who desire to enroll but face difficult financial problems to apply to the student aid committee through the financial aid officer. The committee is concerned not only with the awarding of scholarships but also with awarding work study grants and loans. Within the limited funds available for these purposes, every effort is made by the college to help students who need monetary assistance.

Financial need is determined through analysis of a Family Financial Statement of the American College Testing Service prepared by the student and parents or guardian. Analysis of family's financial situation indicates the family's ability to contribute toward educational expenses. Most financial aid is based on need rather than scholastic record. Financial need is the difference in the total educational expenses and what the family can afford to contribute.

There are three types of student financial aid: gift assistance, student loans, and work. Gift assistance includes grants and scholarships —

awards that do not have to be repaid. Loans and work are self-help. Loans are usually paid back after enrollment is terminated. Work enables students to pay part of their expenses through their own earnings.

APPLICATION PROCEDURE

Students who are entering Caldwell Community College and Technical Institute for the first time and are in need of financial aid are requested to follow this pattern of application procedure:

1. After application for admission has been initiated (see "Admissions"), write to the financial aid officer and outline needs for financial aid. Instructions for applying will be sent to the applicant. Whenever possible, the student should request the application in person. It is to the student's advantage to apply as early as possible for financial assistance.
2. The student who desires to apply for financial assistance must file a Family Financial Statement from the American College Testing Service and must apply for a Basic Education Opportunity Grant. These forms are available from the financial aid officer.
3. Report for a personal interview when designated.
4. Determination of the scholarship, loan, or work-study grant will be made by the institution's student aid committee and applicants will then be notified by letter.

TYPES OF AID AVAILABLE

Applicants may apply for a scholarship, grant, loan, work-study, or any combination of these. The total combined sum of these must not exceed total need.

In the event that a student receiving aid withdraws from the institution, the student will be responsible for repayment of a prorated amount of any portion of payments which were extended to that student for living expenses and which would no longer be attributed to meeting expenses related to attendance.

The student has the obligation to maintain the "academic standards of progress" as defined by this institution. Failure to maintain academic progress will result in the loss of eligibility for financial aid. Eligibility for aid may be regained by reestablishing academic progress. These regulations are especially applicable to recipients of financial aid from federally sponsored programs.

I. FEDERALLY SPONSORED PROGRAMS

Basic Educational Opportunity Grant

The Basic Educational Opportunity Grant program is designed to provide financial assistance to those who need it to attend post-high school educational institutions. The amount of the Basic Grant is determined on the basis of the student's and his/her family's financial resources. To be eligible for this program, a student must be older than the compulsory age of secondary school attendance and must not already have a baccalaureate degree.

The Basic Educational Opportunity Grant Award is a grant and, unlike a loan, does not have to be repaid. Every student who is applying for financial aid at Caldwell Community College and Technical Institute must apply for the BEOG. Applications may be obtained from high schools, public buildings, or from the office of financial aid at this institution.

National Direct Student Loan Program

This is a federal loan through which students may borrow funds to complete their education if they are enrolled in a vocational program or if they have completed less than two years of a program leading to a bachelor's degree. Repayment begins nine months after the student graduates or leaves school for other reasons. The loan recipient may be allowed up to ten years to pay back the loan. During the repayment period three percent interest will be charged on the unpaid balance of the loan principal. No payments are required for up to three years while a person serves in the Armed Forces, Peace Corps, or VISTA.

Supplemental Educational Opportunity Grant (SEOG) Program

This program of direct grants of financial aid is for students of exceptional financial need who without the grant would be unable to continue their education.

Guaranteed Student Loan Program

This program enables the student to borrow directly from a bank, credit union, savings and loan association, or other participating lender who is willing to make the educational loan. The loan is guaranteed by a state or private nonprofit agency or insured by the federal government.

To apply for the federal interest benefits, students must submit to the lender a recommendation from their school as to the amount they need to meet educational expenses. If they qualify for these benefits the federal government will pay the interest until repayment of the principal must begin. Payments begin between nine and twelve months after the student graduates or leaves school. Up to ten years may be allowed to complete repayment. A person does not have to make payments for up to three years while serving in the Armed Forces, Peace Corps, or VISTA, or for any time the person returns to full-time study.

College Work-Study Program

Caldwell Community College and Technical Institute participates in the college work-study program which provides on-campus work opportunity for students needing financial assistance to attend school. Work is available for students to assist in the library, faculty and administrative offices, laboratories, shops, and building maintenance. Students working under this program are paid in cash monthly for the work performed. In arranging a job and determining how many hours a week a student may work under this program, the financial aid officer will take into account the student's (1) need for financial assistance; (2) class schedule; and (3) health and academic progress.

Nursing Student Loan and Scholarship Programs

These programs are administered by the Bureau of Health Manpower Education, National Institutes of Health. Funds are available to students who establish financial need and who are enrolled in the diploma or the degree program of nursing.

The nursing student loan is repayable at three percent interest. Repayment may be extended over a period up to ten years.

The nursing scholarship program is available to students in good academic standing who establish exceptional financial need. The funds are used as gift assistance and do not have to be repaid.

II. STATE SUPPORTED PROGRAMS

North Carolina State Student Incentive Grant

Legal residents of North Carolina who are enrolled full time and maintaining academic progress may apply for the NCSSIG. Students must demonstrate "substantial financial need."

The NCSSIG program is administered in North Carolina by the College Foundation, Inc. Application procedures include the filing of a needs analysis system, either the Financial Aid Form of the College Scholarship Service or the Family Financial Statement of the American College Testing Service. Details of the application process are available from high school guidance counselors and from the financial aid officer.

North Carolina Prospective Teacher Scholarship Loan

This scholarship provides financial assistance toward completing programs of study in preparation for teaching. These scholarships are available to North Carolina residents of high scholastic ability and teaching aptitude.

Scholarships are to be repaid by teaching in the public schools of North Carolina for a period of three, four or five years, according to the amount of the scholarship received, or in cash at five percent interest.

Applications which are available in January of each year, may be obtained either from the high school guidance counselor or from the financial aid officer at Caldwell Community College and Technical Institute.

Scholarship-Loan Fund for Prospective Teachers of the Mentally Retarded

This scholarship-loan is awarded to college students desiring to teach the mentally retarded. The recipient of the loan receives an amount determined by the State Department of Public Instruction per academic year if the student is enrolled full-time in an accredited college or university of North Carolina and is a resident of North Carolina. After the student's graduation, the interest on the unpaid balance shall be paid at the rate of four percent per annum, beginning September 1 following the graduation date. Applications should be submitted to the state superintendent of Public Instruction in Raleigh on forms supplied by that office. The recipient will be obligated to teach in the North Carolina public schools or in a public resident institution for mentally retarded children for one year for each year he received aid. Applications may be obtained either from high school guidance counselors or from the financial aid officer at Caldwell Community College and Technical Institute.

North Carolina State Vocational Work-Study Program

Caldwell Community College and Technical Institute participates in this program in cooperation with the State Board of Education and the Department of Community Colleges. This program provides on-campus work opportunity for students who need earnings from such employment in order to complete their education. Such students must be at least 15 and less than 21 years of age and must be enrolled in a technical or vocational program. Students are paid monthly for the work performed.

III. LOCALLY SUPPORTED PROGRAMS

The institution currently offers several scholarships and loan programs. The sources of these scholarships (clubs, individuals, industries, businesses, foundations, etc.) determine what criteria are to be used in awarding them.

Scholarships and loans available as of the printing of this publication are:

Claude F. Seila Scholarship

This scholarship is awarded each year to one student taking a full time curriculum. It is given by the Lenoir Women's Club in the amount of $175.00.

Dr. Caroline McNairy Scholarship Fund

This memorial scholarship fund was established in 1969 to be awarded to deserving practical nursing students, radiologic technology students, and medical executive secretarial students.

Alpha Delta Kappa Memorial Scholarship

This academic scholarship was established by the Alpha Delta Kappa Sorority. The recipients are to be pre-teaching students who have completed at least 45 credit hours while maintaining an overall average of at least 3.0. Scholarship, leadership, and maturity will be considered. The award is made in the fall of the year. Applications are available from the financial aid officer.

Mu Alpha Theta Scholarship

This fund was established by the Hudson High School math fraternity.

Northwestern Bank Scholarship

Established in 1970, this is a perpetual fund given by the local directors of Northwestern Bank whose personal contributions are matched by the bank.

C.W. Porter Scholarship

This memorial scholarship was established in 1971 by the friends of the late C.W. ''Soup'' Porter. It had initial contributions from 26 individuals and businesses totaling over $5,000.00. Contributions to this fund are accepted at any time.

Student Government Scholarship

This scholarship awards $100 to both a male and a female student for their outstanding contributions to student activities.

Rotary Club Nursing Scholarship/Loan

The Lenoir Rotary Club has designated that recipients of this fund be enrolled in the associate degree of nursing program. The recipient may renew for the second year of the program. Repayment may be made in cash or by working as a nurse in Caldwell County.

Hambrick Memorial Foundation Scholarship

Dr. Robert T. Hambrick established this scholarship fund to aid worthy students from the health related programs at Caldwell Community College and Technical Institute.

J.C. Russell Memorial Scholarship

This fund was established in 1972 by Mrs. J.C. Russell as a memorial to her late husband. She has requested that the recipients be students who could not continue their education without financial assistance.

Jean McCorkle Smith Scholarship

The Half Century Homemakers Club established this scholarship fund in memory of Jean McCorkle Smith, a former member and president of the club. The recipient of the scholarship will be an eligible student enrolled in the nursing program.

Blue Ridge Electric Membership Corporation Scholarship

This fund was established in September, 1973 to assist in meeting the educational needs of students.

Broyhill Foundation Scholarship

The Broyhill Foundation contributes $1,000.00 each year to maintain a scholarship fund to be used to aid students in continuing their education.

M.L. DeVane Scholarship

The Ebony Kinship Club of CCC & TI established this fund in 1975 to aid a student enrolling full-time at this institution. It was further stipulated that the recipient have completed 45 credit hours while maintaining an overall average of 2.5 or higher.

Granite Savings and Loan Association Scholarship

The board of directors of the Association voted in April, 1974 to establish this scholarship fund. An award is to be made to a graduate of South Caldwell High School. The student selected must be enrolled or accepted for enrollment in either a vocational or technical program.

Blackwelder Scholarship

This fund was established in 1972 by the Caldwell County Extension Homemakers Clubs to honor Dr. Verne H. Blackwelder, a local physician. The recipients of this scholarship fund are to be worthy students from the health related programs.

Caldwell Medical Society Loan Fund

In the spring of 1974, the Caldwell Medical Society established a loan fund which would be available to students in the health related programs at Caldwell Community College and Technical Institute. The amount borrowed by the student would depend on financial need. The student must repay the loan at a low interest rate. Payments would begin after graduation or upon withdrawal from school.

Caldwell Medical Society Auxiliary Scholarship

Established in 1975, this scholarship has been designated by the Caldwell Medical Society Auxiliary to be used to aid a student enrolled in nursing training who would otherwise be unable to attend school.

Altrusa Club Scholarship

This fund was established by the Altrusa Club of Caldwell County in 1975 to aid students over 25 years of age who are residents of Caldwell County and who are returning to school to pursue career training.

Rufus C. Gwyn Memorial Scholarship Fund

Each year the faculty of the college awards a scholarship to a student who is graduating from CCC & TI and whose intentions are to further his/her education. The scholarship is paid to the institution where the student is enrolled. Nominations may be made by faculty, staff, community, and students.

Those making nominations and the committee selecting the recipient of the scholarship will consider:

1. integrity, the nominee's wisdom, concern for others, and humility
2. desire to continue education
3. need
4. capability to succeed in the area in which the student is to enroll.

North Carolina Electric Membership Corporation Scholarship

The N.C.E.M.C. donated funds in 1977 to establish this scholarship to assist deserving students.

Emory C. McCall Scholarship

This memorial scholarship was established as a perpetual fund in 1976 by the friends of the late Emory C. McCall. It has initial contributions from over 85 individuals and businesses totaling over $10,000.

Carl Prestwood Scholarship

The family and friends of the late Carl Prestwood established this memorial fund in 1976 to be used as scholarships for deserving students. Initial contributions totaled approximately $2500.

Marian Alma Coffey Memorial Scholarship

The family and friends of the late ''Mac'' Coffey, who was a student at CCC & TI in recreational leadership, established this memorial scholarship to be used for second-year students enrolled in the recreational leadership program.

Carrie Peters Memorial Scholarship

This fund was established in 1976 by the family and friends of Carrie Peters to be used to aid deserving students.

Lenoir Woman's Club Past-Presidents Scholarship

This fund, honoring the past presidents of the Lenoir Woman's Club, was established by that organization in 1978. The recipient must be a needy student with academic promise who is a resident of Caldwell County.

Addie B. Flowers Scholarship Fund

Established in 1978 as a memorial to the late Ms. Flowers, this fund has been designated to aid students in Caldwell County in need of financial assistance.

Lenoir Kiwanis Club Scholarship

This fund is provided by the Lenoir Kiwanis Club to aid needy students.

North Carolina Association Of Supervisors Of Elections Scholarship

The association has provided funds to aid North Carolina residents who demonstrate financial need.

Wilford Randolph McGowan Scholarship

Established in 1978 as a memorial to Randy McGowan by his friends and family, this fund is to be used for residents of Caldwell and contiguous counties. It is to be based on need and academic promise.

Harold Coffey Memorial Scholarship

The Coffey Foundation established this scholarship fund in 1978 as a memorial to Mr. Coffey. Its recipients are to be needy residents of Caldwell and contiguous counties.

Gerald Haan Scholarship

This fund was established in 1977 by the fellow workers of Gerald Haan to help needy students.

Western North Carolina Lung Association Scholarship

The association has provided funds to be used for a deserving nursing student.

Lenoir Lions Club Health Care Scholarship

The Lenoir Lions Club provides funds to aid needy students in the nursing, radiology, and recreational leadership programs.

IV. FOUNDATIONS

Many students who enroll at Caldwell Community College and Technical Institute receive financial assistance from private foundations. Some of this assistance is in the form of gifts and scholarships. Other students are able to borrow funds from these foundations to continue their education.

C.L. Robbins Foundation

Students enrolling at Caldwell Community College and Technical Institute are eligible to apply for financial assistance through the Robbins Foundation. Applications are reviewed by the college's financial aid committee of the Robbins Foundation.

Applications may be secured from the financial aid officer at Caldwell

Community College and Technical Institute or from the Foundation.

College Foundation Loan

North Carolina residents may apply for a guaranteed loan through the College Foundation. Applicants must be enrolled full time and be in good academic standing. Loans may not exceed the total cost of education less other financial aid received. The amount of the loan is determined by the Foundation after consideration of the school's recommendation. Borrowers who are determined to be eligible may have the interest on the loan paid by the federal government during the enrollment, grace, and deferment periods. After graduation or upon withdrawal from school, the borrower then assumes the full seven percent interest on the balance of the loan.

V. OTHER AGENCIES AND RESOURCES

Caldwell Community College and Technical Institute serves as a referral and information agency for the following resources:

1. Veterans benefits
2. Social Security Agency
3. Vocational Rehabilitation Agency
4. Department of Social Services
5. Various other North Carolina agencies

STUDENT AFFAIRS

GENERAL PHILOSOPHY

The philosophy of the student affairs division reflects the stated mission, purpose, and philosophy of the institution, which is the total development of students. The division takes an active role in providing opportunities for mutual problem solving, developing relevant experiences, and promoting a general atmosphere in which students may develop their full potential as human beings.

COUNSELING

Opportunities for counseling are made available to all students enrolled in the college. Information and counseling are available to assist students in various areas, such as admissions, course and program selection, financial aid, personal and social problems, career selection, job placement, study habits, college transfer, veterans' information, and human development courses.

TESTING SERVICE

Testing is provided at no cost to the students. They are encouraged to avail themselves of the services offered in the diagnostic testing center.

ORIENTATION

New students are expected to participate in an orientation program designed to promote a more rapid adjustment to the institution. The orientation programs are usually held in late summer or early fall of each year.

HOUSING

The college does not have housing facilities, but students are generally able to locate satisfactory housing in the area. It is important that both students and landlords have a complete understanding of rental conditions so that there will be no misunderstandings concerning such details.

TRANSPORTATION

The college provides no transportation service for students. There are no buses or other forms of public transportation, so students must have their own forms of transportation and/or participate in car pools.

STUDENT/ALUMNI JOB PLACEMENT

The placement of students and alumni in jobs is a function of the student affairs division. A career counselor seeks available job listings from local employers, and students and alumni are encouraged to register and confer with this office in their search for meaningful employment.

STUDENT CONDUCT AND RESPONSIBILITIES

It is expected that students will conduct themselves as responsible adults, thus obeying all federal, state, and local laws as well as specific college regulations. The board of trustees retains the right to pass certain regulations governing the conduct of students on campus and at college-sponsored events. Specific information regarding these regulations is found in the student handbook. Students may be dismissed whose conduct violates these laws or regulations or whose conduct is considered incompatible with the purposes of the college. THEREFORE, ALL STUDENTS ARE HEREBY GIVEN NOTICE TO EXAMINE THE STUDENT HANDBOOK PRIOR TO ADMISSION AND TO UNDERSTAND ITS CONTENTS. Copies of the handbook are available in the student affairs office.

STUDENT GRIEVANCE PROCEDURE

Procedures have been established for students to follow when or if they feel they have been treated unjustly or in a discriminatory manner. Both informal and formal grievance procedures are described in the student handbook under the heading, ''Grievance Procedures.''

STUDENT ACTIVITIES AND ORGANIZATIONS

STUDENT GOVERNMENT ASSOCIATION

The student government association is composed of all students who enroll in curriculum programs at the college. Officers and senators are elected each year to serve the student body in promoting various activities and opportunities for out-of-class learning, social contacts, entertainment, and self-governance. The elected officers and senators strive to promote the general welfare of the students in a democratic fashion.

A copy of the student government constitution may be found in the student handbook.

CLUBS AND ORGANIZATIONS

Various clubs and organizations have been developed by students at the college:

Departmental/Subject Related Clubs
  Cosmetology Club
  Recreation Therapy Club
  Nursing Club
  Sigma Tau Omega (Radiology)
  Lambda Mu Society (Library Technology)
  Early Childhood Club
General Interest Clubs
  Ebony Kinship
  Art Society
  Chess Club
  Photography Club
  Veterans Club
  Circle K

Any group of students may create a new club by following the steps outlined in the student government constitution in the student handbook.

ATHLETICS

The college is a member of the National Junior College Athletic Association and the Western Tarheel Conference and participates in intercollegiate golf, tennis, and basketball. Both men and women participate on the same golf and tennis teams, and the men and women have separate basketball teams. The school colors are blue and white and the mascot is the Cavalier.

Students interested in any of these sports should contact the various athletic coaches in the faculty office area.

INTRAMURALS

Various intramural sports opportunities are available for students, faculty, and staff at the college. Volleyball, chess, tennis, ping pong, shuffleboard, badminton, basketball, pickleball, and frisbie football are among the intramural offerings during each year.

Students interested in participating should contact the intramural coordinator in the faculty office area and watch for announcements on the intramural bulletinboard in the student lounge.

STUDENT ACTIVITIES

Personal and social development is as important a part of education as academic improvement, and the college is committed to providing various student activities on campus to encourage development in these areas. In order to finance these activities, a student activity fee of $1.00 per course (up to a maximum of $5) is charged each student. The fee is used to support such activities and organizations as the following: campus clubs; dances; cook-outs; picnics; intercollegiate athletics; intramurals; purchase and maintenance of the television set, pool tables, and related equipment; student government activities; scholarships; trophies; speakers; film series; a variety of cultural programs; skiing excursions; and a variety of miscellaneous activities. Students who wish to initiate new activities should contact the student government association office for assistance.

LEARNING RESOURCE CENTER

The purpose of the Caldwell Community College and Technical Institute learning resource center is to support the established objectives of the total educational program through a collection of print and non-print media and audiovisual equipment, orientation and references services, and audiovisual and reprographic production.

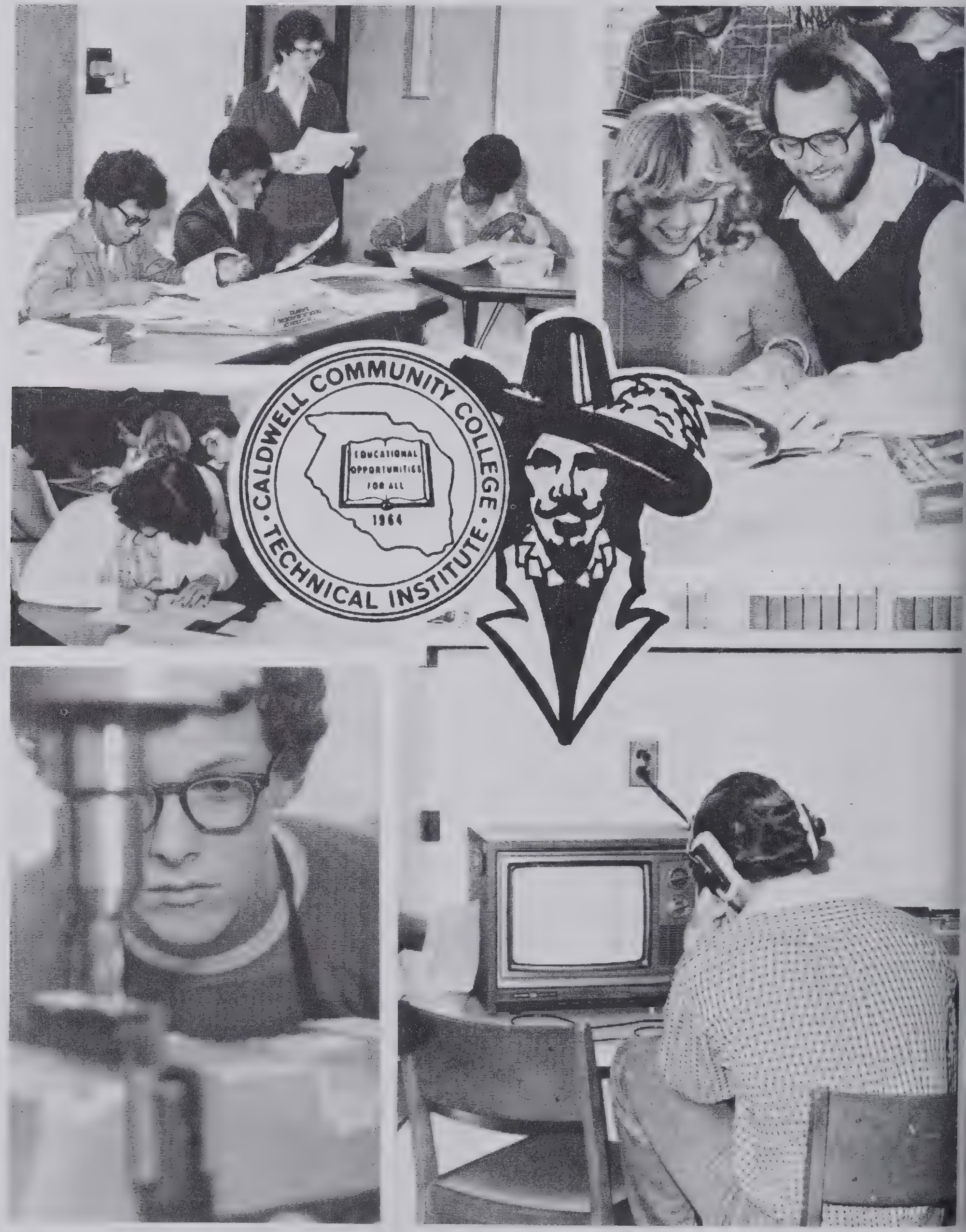
Students are encouraged to look upon the LRC as an extension of their classroom instruction. The LRC has study stations and resources to support study and provide for recreational reading, listening, and viewing. In addition, the LRC staff are always ready to be of assistance.

DIAGNOSTIC TESTING CENTER

Caldwell Community College and Technical Institute follows an "open door" policy and does not impose restrictive standards for admission to the institution. A student's capabilities do have to be determined, thereby, helping to eliminate the failure factor which leads to low self-esteem, lack of confidence, discouragement, and eventual withdrawal from school. Placement testing is used for this purpose.

The testing center makes available to students, at no cost, tests which measure aptitude, personality, achievement, and vocational interest.

The testing center provides proper evaluation and control of all psychological tests.



PROGRAMS OF STUDY

SPECIAL CODING SYSTEM

F	Course will be offered FALL QUARTER.
W	Course will be offered WINTER QUARTER.
S	Course will be offered SPRING QUARTER.
SS	Course will be offered SUMMER QUARTER.
D	Course will be offered on DEMAND.

The numbers to the right of the course title represent the following: class, lab, credit. For example:

	Class	Lab	Quarter Hour Credit
ENG 203 English Literature	3	0	3

In order to determine contact hours, add class hours plus lab hours.

For example:	Class	Lab	Quarter Hour Credit
ART 120 Ceramics	2	2	3

Two class hours plus 2 lab hours equals 4 contact hours. Where no prerequisite is listed, none is required.

OCCUPATIONAL DIPLOMA PROGRAMS

Diploma programs are designed to prepare persons for trade level occupations. Emphasis is given to the development of manipulative skills. Caldwell Community College and Technical Institute offers the following diploma programs:

AUTO BODY REPAIR
AUTOMOTIVE MECHANICS
  Imported Car Option
COSMETOLOGY
ELECTRICAL INSTALLATION AND MAINTENANCE
ELECTRONIC DATA SYSTEMS+
FURNITURE PRODUCTION TECHNOLOGY+
INDUSTRIAL MAINTENANCE ENGINEERING+
MACHINE SHOP
MECHANICAL DRAFTING+
NURSING — ASSOCIATE DEGREE+
PLASTICS+*
TOOL AND DIE
UPHOLSTERY, CUTTING, SEWING*
WELDING

+Diploma options
*Approved but not offered 80-81

AUTOMOTIVE BODY REPAIR (V-001)

CAREER INFORMATION

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, estimate, repair, and paint automobile bodies. Manual skills are developed in practical shop work. The study of automobile bodies, the stresses of metal, and the composition of paint constitute the curriculum.

Complexity in automobile vehicles increases each year because of scientific discovery and new engineering. The changes are reflected not only in passenger vehicles, but also in trucks, buses, and a variety of motor vehicles. This curriculum provides a basis for the student to compare and adapt to new techniques and new tools for repairing motor vehicle bodies.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
AUB 1101	Auto Body I	4	12	8
WLD 1101	Auto Body Welding I	1	3	2
RDG 092	Reading	1	3	2
PSY 206	Applied Psychology	3	0	3
MAT 1101	Fundamentals of Math	3	0	3
		12	18	18
WINTER QUARTER				
AUB 1102	Auto Body II	4	12	8
WLD 1130	Auto Body Welding II	1	3	2
BUS 1103	Small Business Operation	3	0	3
PHY 1101	Applied Science	2	2	3
		10	17	16
SPRING QUARTER				
AUB 1103	Auto Body III	4	12	8
DFT 113	Auto Body Drafting Interpretation	1	3	2
ENG 1102	Communication Skills	3	0	3
AHR 1101	Automotive Air Conditioning	3	3	4
		11	18	17
SUMMER QUARTER				
AUB 1104	Auto Body IV	4	12	8
AUB 1105	Auto Body Shop Application	3	9	6
		7	21	14
	TOTAL HOURS	40	74	65

AUTO BODY REPAIR

*Part-time Curriculum**

AUB 1101-1	Auto Body Repair I	2-6-4
AUB 1101-2	Auto Body Repair I	2-6-4

AUB 1102-1	Auto Body Repair II	2-6-4
AUB 1102-2	Auto Body Repair II	2-6-4
AUB 1103-1	Auto Body Repair III	2-6-4
AUB 1103-2	Auto Body Repair III	2-6-4
AUB 1104-1	Auto Body Repair IV	2-6-4
AUB 1104-2	Auto Body Repair IV	2-6-4
AUB 1105-1	Auto Body Shop Applications	2-6-4
AUB 1105-2	Auto Body Shop Applications	1-3-2
AHR 1101	Automotive Air Conditioning	3-3-4
BUS 1103	Small Business Operations	3-0-3
DFT 113	Auto Body Drafting Interpretation	1-3-2
ENG 1102	Communication Skills	3-0-3
MAT 1101	Fundamentals of Math	3-0-3
PHY 1101	Applied Science	2-2-3
PSY 206	Applied Psychology	3-0-3
RDG 092	Reading	1-3-2
WLD 1101	Auto Body Welding I	1-3-2
WLD 1130	Auto Body Welding II	1-3-2

*Usually evenings.

AUTOMOTIVE MECHANICS (V-003)

CAREER INFORMATION

Automotive mechanics diagnose, maintain, and repair mechanical, electrical, and other component parts of passenger cars, trucks, and buses. In some communities and rural areas they also may repair body parts, service tractors, marine engines, and other types of equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They use shop manuals and other technical publications to assist in analysis, disassembly, and identification of component parts.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work, such as repairing only electrical components, power steering, power brakes, or automatic transmissions. Usually, such specialists have had "all-round" training in general automotive repair.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
AUM 1101	Automotive Mechanics I	4	12	8
DFT 110	Mechanics Drafting Interpretation I	1	3	2
RDG 092	Reading	1	3	2
PSY 206	Applied Psychology	3	0	3
MAT 1101	Fundamentals of Math	3	0	3
		12	18	18

	COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER				
AUM 1102	Automotive Mechanics II	4	12	8
DFT 111	Mechanics Drafting Interpretation II	1	3	2
BUS 1103	Small Business Operations	3	0	3
PHY 1101	Applied Science	2	2	3
		10	17	16
SPRING QUARTER				
AUM 1103	Automotive Mechanics III	4	12	8
WLD 1129	Basic Welding	1	3	2
ENG 1102	Communication Skills	3	0	3
AHR 1101	Automotive Air Conditioning	3	3	4
		11	18	17
SUMMER QUARTER				
AUM 1104	Automotive Mechanics IV	4	12	8
AUM 1105	Automotive Servicing	3	9	6
		7	21	14
	TOTAL HOURS	40	74	65

AUTOMOTIVE MECHANICS

*Part-time Curriculum**

AHR 1101	Automotive Air Conditioning	3-3-4
AUM 1101-1	Automotive Mechanics I	2-6-4
AUM 1101-2	Automotive Mechanics I	2-6-4
AUM 1102-1	Automotive Mechanics II	2-6-4
AUM 1102-2	Automotive Mechanics II	2-6-4
AUM 1103-1	Automotive Mechanics III	2-6-4
AUM 1103-2	Automotive Mechanics III	2-6-4
AUM 1104-1	Automotive Mechanics IV	2-6-4
AUM 1104-2	Automotive Mechanics IV	2-6-4
AUM 1105-1	Automotive Servicing	2-6-4
AUM 1105-2	Automotive Servicing	1-3-2
BUS 1103	Small Business Operations	3-0-3
DFT 110	Mechanics Drafting Interpretation I	1-3-2
DFT 111	Mechanics Drafting Interpretation II	1-3-2
ENG 1102	Communications Skills	3-0-3
MAT 1101	Fundamentals of Math	3-0-3
PHY 1101	Applied Science	2-2-3
PSY 206	Applied Psychology	3-0-3
RDG 092	Reading	1-3-2
WLD 1129	Basic Welding	1-3-2

*Usually evenings.

ADVANCED AUTOMOTIVE

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
PME 1202	Auto Electrical Electronics	4	9	7
PME 1203	Automotive Engine Tune-up	4	9	7
Elective		1	3	2
		9	21	16
WINTER QUARTER				
PME 1221	Front Suspension, Alignment and Power Steering	1	3	2
PME 1224	Advanced Automatic Transmissions	3	12	7
PME 1226	Automobile Servicing II	2	9	5
		6	24	14

IMPORTED CAR OPTION

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
RDG	Reading	2	2	2
PHY 1101A	Automotive Applied Physics	2	2	3
DFT 110	Schematics and Diagrams: Power Mechanics	0	3	1
PME 1101	Internal Combustion Engine	3	12	7
MAT 1120	Applied Mathematics	2	2	3
		9	21	16
WINTER QUARTER				
ENG 1102	Communication Skills	3	0	3
DFT 111	Schematics and Diagrams: Power Mechanics	1	3	2
PME 1102	Engine Electrical and Fuel Systems	5	15	10
PHY 1102A	Automotive Applied Science	2	2	3
		11	20	18
SPRING QUARTER				
PSY 206	Applied Psychology	3	0	3
DFT 112	Schematics and Diagrams: Power Mechanics	0	3	1
WLD 1129	Basic Welding	2	3	3
AHR 1101	Automotive Air Conditioning	3	3	4
AUT 1123	Brakes, Chassis and Suspension Systems	3	12	7
		11	21	18

	COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER				
BUS 1103	Typewriting	2	3	3
AUT 1124	Automotive Power Train Systems	3	12	7
AUT 1125	Auto Servicing I	3	9	6
		8	24	16
	TOTAL HOURS	39	86	68

ADVANCED IMPORTED CAR OPTION

FALL QUARTER				
MAT 201	Math Decimal-Metric Conversion	3	0	3
AUT 1145	Transaxle Operation and Repair	3	9	6
AUT 1146	The Air Cooled Engine	2	6	4
AUT 1147	Imported Car Carburetion	2	6	4
		10	21	17
WINTER QUARTER				
AUT 1150	Imported Car Valve Trains	2	6	4
AUT 1154	The Wankel Engine	3	9	6
AUT 1158	Front Wheel Drive Systems	2	6	4
Elective				
		7	21	14

COSMETOLOGY (V-009)

CAREER INFORMATION

Today the cosmetologist is called upon to advise men and women on problems of makeup, diet, and care of the hair, skin, and hands, including the nails. Cosmetology has become a science consisting of the use of cosmetics based on scientific principles. The cosmetology curriculum is designed to prepare the student for employment in the field of cosmetology. The curriculum provides instruction and practice in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair shaping, and styling. This curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

The first quarter of instruction consists of an introduction to cosmetology, including the fundamentals of ethics, history, theory, and practice. The class activities include practical lessons, lectures, demonstrations, and student practice on wefts or mannequins.

The second quarter of instruction places more emphasis on manipulative skills. The acquisition of correct habits and skills is stressed. Practical work is done almost exclusively on patrons and models.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
COS 1001	Scientific Study I	4	6	6
COS 1011	Mannequin Practice	1	18	7
		5	24	13
WINTER QUARTER				
COS 1002	Scientific Study II	5	0	5
ENG 1102	Communication Skills	3	0	3
COS 1022	Clinical Application I	0	24	8
		8	24	16
SPRING QUARTER				
COS 1003	Scientific Study III	5	0	5
COS 1033	Clinical Application II	0	24	8
		5	24	13
SUMMER QUARTER				
COS 1004	Scientific Study IV	5	0	5
COS 1044	Clinical Application III	0	24	8
		5	24	13
	TOTAL HOURS	23	96	55
FALL QUARTER*				
COS 1005	Public Relations for Cosmetologists	3	0	3
COS 1006	Beauty Salon Business Operations	3	0	3
COS 1055	Chemistry Relating to Cosmetology	3	0	3
COS 1066	Hairstyling II	1	18	7
		10	18	16

*NOTE: The North Carolina State Board of Cosmetic Art has approved two options for the student of cosmetology to become state licensed:

1. Successfully complete 1200 school hours and work a six month apprenticeship under a licensed cosmetologist after passing the North Carolina State Board examination or
2. Successfully complete 1500 school hours (substituting 300 hours for the apprenticeship) and pass the North Carolina State Board examination to become a licensed cosmetologist.

The additional courses have been added for the student who chooses the 1500 hour option. These are more advanced courses which will better prepare the student to become a licensed cosmetologist.

COSMETOLOGY

*Part-time Curriculum**

COS 1001	Scientific Study I	4-6-6
COS 1002	Scientific Study II	5-0-5
COS 1003	Scientific Study III	5-0-5
COS 1004	Scientific Study IV	5-0-5
COS 1011	Mannequin Practice	1-18-7
COS 1022-1	Clinical Application I	0-6-2
COS 1022-2	Clinical Application I	0-18-6
COS 1033-1	Clinical Application II	0-15-5
COS 1033-2	Clinical Application II	5-0-5
COS 1044-1	Clinical Application III	0-3-1
COS 1044-2	Clinical Application III	0-21-7
ENG 1102	English Composition	3-0-3

*Usually evenings.

DRAFTING — MECHANICAL (V-017)

(DIPLOMA OPTION)

CAREER INFORMATION

This curriculum is designed to prepare students to enter the field of mechanical drafting. The first two quarters contain courses basic to all fields of drafting. The third and fourth quarters contain specialization and related courses that prepare one to enter mechanical drafting occupations. Each course is prepared to enable an individual to advance.

A mechanical draftsman performs the general duties of a draftsman and also specializes in making rough freehand and mechanical drafting sketches of proposed mechanical devices, drawing the necessary details. The mechanical draftsman also prepares accurate scale drawings of parts or machines from specifications.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
RDG	Reading	2	2	2
MAT 1101	Fundamentals of Math	3	0	3
MEC 101	Machine Processes	1	5	3
WLD 1129	Basic Welding	2	3	3
DFT 101	Technical Drafting	2	8	5
		10	18	16
WINTER QUARTER				
MAT 1102	Algebra	5	0	5
PHY 1101	Applied Science	2	4	4
MEC 102	Machine Processes	1	5	3
DFT 102	Technical Drafting	2	9	5
		10	18	17
SPRING QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
MAT 1104	Trigonometry	3	0	3
MEC 122	Production Procedures	4	3	5
PHY 1102	Applied Science	2	2	3
DFT 103	Technical Drafting	2	9	5
		14	14	19
SUMMER QUARTER				
MEC 205	Strength of Materials	3	2	4
MEC 210	Physical Metallurgy	3	3	4
DFT 201	Technical Drafting	3	9	6
DFT 204	Descriptive Geometry	2	4	4
		11	18	18
	TOTAL HOURS	45	68	70

ELECTRICAL INSTALLATION AND MAINTENANCE (V-018)

CAREER INFORMATION

A student will have acquired a basic knowledge of the National Electrical Code as it pertains to wiring design, wiring methods, materials, and equipment for general uses. He will also develop skill in using electrical prints, trouble-shooting, electrical controls, and the repair of electrical and electronic equipment and will acquire a basic knowledge of business procedures and organization.

Within four to six years after completion of this course and with dedication to one's work, the student can become a highly skilled electrician craftsman in this area.

On the completion of the electrical installation and maintenance course, one would be prepared to enter into the electrical field as an assistant electrician in either of two general areas:

(1) Construction — including new wiring and rewiring of residential, commercial, and industrial buildings.

(2) Maintenance — including installation and maintenance of motors, motor controls, and industrial electronics.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
RDG	Reading	2	2	2
MAT 1115	Electrical Math	5	0	5
PSY 206	Applied Psychology	3	0	3
DFT 110	Schematics and Diagrams: Power Mechanics	1	3	2
ELC 1112	Direct and Alternating Current	4	12	8
		15	17	20
WINTER QUARTER				
ENG 1102	Communication Skills	3	0	3
PHY 1101	Applied Science	2	4	4
DFT 113	Blueprint Reading: Mechanical	0	3	1
ELC 1113	Alternating Current and Direct Current and Machines and Controls	5	14	10
		10	21	18
SPRING QUARTER				
PHY 1102	Applied Science	2	4	4
ELC 1124	Residential Wiring	5	9	8
ELC 1125	Commercial and Industrial Wiring	2	9	5
		9	22	17
SUMMER QUARTER				
BUS 1103	Small Business Operations	3	0	3
ELN 1118	Industrial Electronics Fundamentals	4	8	7
ELN 1119	Industrial Electronics Controls	4	11	8
		11	19	18
	TOTAL HOURS	45	79	73

ELECTRONIC DATA SYSTEMS (T-022)

(DIPLOMA OPTION)

CAREER INFORMATION

Data systems specialists often are called upon to perform many varied tasks in a computer center. They are required frequently to operate and program the computer system. They may be members of a programming team with the responsibility for preparing programs for computer solution through joint effort. They may be asked to transform the general requirements of accountants, business managers, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals data systems specialists may be required to update, revise, correct, and write programs as the needs of management dictate.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
BUS 110	Office Machines	2	2	3
BUS 120	Principles of Accounting	3	2	4
EDP 101	Computers and Programming I	4	4	6
		12	10	16
WINTER QUARTER				
ENG 102	English Composition	3	0	3
BUS 121	Principles of Accounting	3	2	4
MAT 110	Business Math	5	0	5
EDP 102	Computers and Programming II	4	4	6
		15	6	18
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
BUS 122	Principles of Accounting	3	2	4
EDP 103	Computers and Programming III	4	4	6
BUS 101	Introduction to Business	5	0	5
		15	6	18
SUMMER QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
EDP 214	Practicum I	0	15	5
EDP 208	Systems & Orientation	4	4	6
		7	19	14
	TOTAL	49	41	66

FURNITURE PRODUCTION ASSISTANT (V-040)

(DIPLOMA OPTION)

CAREER INFORMATION

This curriculum was developed by the furniture industry advisory committee and this college with the primary purpose of better performance on the job. This would include people who have furniture production jobs who want to improve themselves, as well as people without jobs who want to become qualified for jobs in the furniture industry.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 1102	English Communication Skills	3	0	3
T-MAT 100	Mathematics	3	0	3
DFT 101F	Technical Drafting	2	6	4
FUR 104	Characteristics of Wood	3	0	3
FUR 108	Production Equipment I	4	0	4
		15	6	17

	COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER				
DFT 102F	Technical Drafting	2	6	4
FUR 102	Construction and Billing I	1	3	2
FUR 109	Production Equipment II	4	0	4
FUR 112	Routing, Scheduling, and Process	2	2	3
		9	11	13
SPRING QUARTER				
ISC 102	Industrial Safety	3	0	3
ISC 203	Motion Study	2	2	3
FUR 103	Construction and Billing II	1	3	2
FUR 106	Abrasive Materials and Glues	2	2	3
PSY 206	Applied Psychology	3	0	3
		11	7	14
SUMMER QUARTER				
BUS 285	Cost Records and Estimates	2	0	2
ISC 103	Production Control	1	3	2
ISC 201	Industrial Organization and Management	3	0	3
ISC 202	Quality Control	3	0	3
ISC 207	Foremanship Supervision	3	0	3
FUR 107	Finishing Methods and Material	2	2	3
		14	5	15
	TOTAL HOURS	49	29	60

INDUSTRIAL MAINTENANCE ENGINEER (V-018)
(DIPLOMA OPTION)

CAREER INFORMATION

This program is designed to prepare its graduates for employment as industrial maintenance engineers. Training in theory and practical skills provide the knowledge needed to inspect, diagnose, repair, and install industrial, electrical, and mechanical equipment. Special emphasis will be given to following directions from blue prints and sketches, using hand tools and metal-working machines, and checking the work with measuring and testing instruments. The industrial maintenance engineer curriculum is flexible in that courses in major fields may be supplemented by a wide selection of subjects to related technologies such as welding, machine shop, hydraulics and pneumatics, metallurgy, and electricity.

Upon completion of the first four quarters, the student may receive a diploma or continue in the remaining two quarters and qualify for an associate in applied science degree.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
T-MAT 100	Mathematics	3	0	3
ELC 112	Alternating and Direct Current	2	6	4
ISC 102	Industrial Safety	3	0	3
MEC 101	Machine Processes	1	5	3
WLD 120	Welding, Oxyacetylene	1	3	2
		10	14	15
WINTER QUARTER				
T-MAT 201	Mathematis (Decimal-Metric Conversion)	3	0	3
DFT 104	Blueprint Reading: Mechanical	0	3	1
ELC 113	Industrial Electronic Control	2	6	4
MEC 102	Machine Processes	1	5	3
WLD 121	Arc Welding	1	6	3
		7	20	14
SPRING QUARTER				
AHR 101	Air Conditioning and Refrigeration	3	3	4
DFT 105	Blueprint Reading and Sketching	0	3	1
ELC 119	Alter. & Direct Current Mach. Conts.	2	6	4
BUS 235	Business Management	3	0	3
MEC 235	Hydraulics and Pneumatics	3	3	4
		11	15	15
SUMMER QUARTER				
ELC 121	Electrical Trouble-Shooting	2	3	3
MEC 114	Shop Practice	1	6	3
MEC 210	Physical Metallurgy	3	3	4
MEC 298	Mechanical Problems Solving	2	3	3
WLD 122	Commercial and Inc. Practice	2	3	3
		10	18	16
	TOTAL HOURS	38	67	61

MACHINE SHOP (V-032)

CAREER INFORMATION

The machine shop is the backbone of the industrial economy and requires a special skilled worker to perform the complex operations involved. The machinist is the skilled worker who shapes metal parts by using machine tools and proper total shop practice. Both training and work experience enables the machinist to plan and carry through the operations needed in turning out a machined product. A skilled machinist is able to: select the proper tools, materials, and methods required for each job; plan the cutting and finishing operations called for on the blueprint or written instructions; make most standard shop computations related to tooling, feeds, speeds, and dimensions of the work; use precision measuring instruments such as micrometers, vernier calipers, vernier height gages, and indicators to maintain accuracies of the work to, sometimes, within thousandths of an inch.

Skilled workers must be able to set up and operate most types of machine tools such as drill presses, lathes, milling machines, boring machines, and grinders. In addition, a machinist also spends time setting up and operating some more productive machines such as numerical tape controlled machines, turret lathes, and automatic screw machines and becomes familiar with the composition of metals so as to be able to select, heat treat, and quench parts to improve their mechanical properties.

Such a broad knowledge enables the skilled machinist to turn a piece of metal into an intricate precise final product.

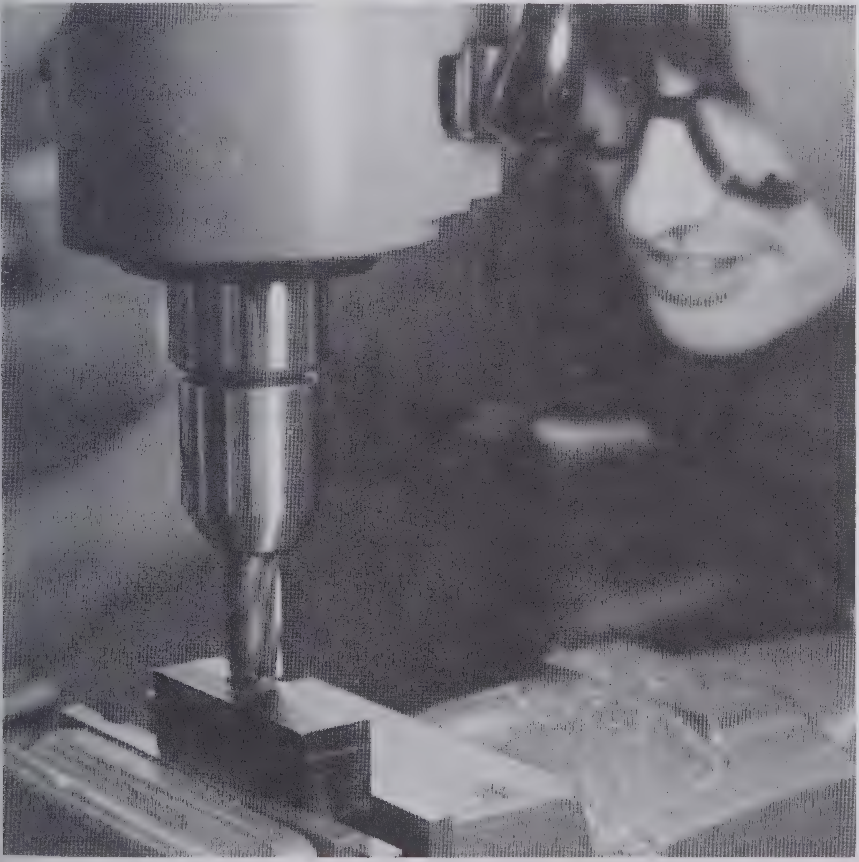
	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
MAT 1101	Fundamentals of Math	3	0	3
DFT 113	Blueprint Reading: Mechanical	0	3	1
WLD 1129	Basic Welding	2	3	3
MEC 1101	Machine Shop Theory and Practice	4	12	8
		9	18	15
WINTER QUARTER				
RDG	Reading	2	2	2
MAT 1102	Algebra	5	0	5
DFT 114	Blueprint Reading: Mechanical	0	3	1
MEC 1102	Machine Shop Theory and Practice	4	12	8
		11	17	16
SPRING QUARTER				
MAT 1104	Trigonometry	3	0	3
DFT 115	Blueprint Reading: Mechanical	0	3	1
MEC 1103	Machine Shop Theory and Practice	4	12	8
MEC 1115	Treatment of Ferrous Metals	2	3	3
		9	18	15
SUMMER QUARTER				
MAT 1123	Math: Machinist	3	0	3
MEC 1104	Machine Shop Theory and Practice	3	12	7
MEC 1116	Treatment of Nonferrous Metals	2	3	3
MEC 1122	Production Procedures	4	3	5
		12	18	18
	TOTAL HOURS	41	71	64

MACHINE SHOP

*Part-time Curriculum**

DFT 113	Blueprint Reading: Mechanical	0-3-1
DFT 114	Blueprint Reading: Mechanical	0-3-1
DFT 115	Blueprint Reading: Mechanical	0-3-1
MAT 1101	Fundamentals of Math	3-0-3
MAT 1102	Algebra	5-0-5
MAT 1104	Trigonometry	3-0-3
MAT 1123	Math: Machinist	3-0-3
MEC 1101-1	Machine Shop Theory and Practice	2-6-4
MEC 1101-2	Machine Shop Theory and Practice	2-6-4
MEC 1102-1	Machine Shop Theory and Practice	2-6-4
MEC 1102-2	Machine Shop Theory and Practice	2-6-4
MEC 1103-1	Machine Shop Theory and Practice	2-6-4
MEC 1103-2	Machine Shop Theory and Practice	2-6-4
MEC 1104-1	Machine Shop Theory and Practice	2-6-4
MEC 1104-2	Machine Shop Theory and Practice	1-6-3
MEC 1115	Treatment of Ferrous Metals	2-3-3
MEC 1116	Treatment of Nonferrous Metals	2-3-3
MEC 1122	Production Processes	4-3-5
RDG	Reading	2-2-2
WLD 1129	Basic Welding	2-3-3

*Usually evenings.



NURSING — ASSOCIATE DEGREE (V-038)
(DIPLOMA OPTION)

CAREER INFORMATION

Graduates of accredited programs of nurse education are prepared to function as beginning practitioners in a variety of situations, including hospitals; nursing homes; clinics; doctors', dentists', and veterinarians' offices; industry; and in some instances, public health facilities.

A student enrolled in the associate degree nursing program has career options at two points during the training. Upon successful completion of the first year, the student is prepared to practice as a practical nurse and is eligible for practical nurse licensing examinations. The student is also eligible to apply for the second year of the nursing program.

Upon successful completion of the second year, the student is prepared to practice with technical competence, is eligible for registered nurse licensing examinations, and qualifies for an associate degree in nursing. These examinations are administered by the North Carolina Board of Nursing and are given twice each year, in February and July.

FIRST LEVEL — Practical Nursing

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
BIO 130	Basic Life Science	4	2	5
PSY 201	General Psychology	3	0	3
NUR 101	Fundamentals of Nursing	6	6	9
NUR 102	Nutrition	3	0	3
		19	10	23
WINTER QUARTER				
PSY 210	Human Growth and Development	3	0	3
NUR 103	Pharmacology	3	0	3
NUR 104	Maternal-Infant Health I	4	0	4
NUR 105	Maternal-Infant Health I Lab	0	6	2
NUR 106	Child Health Nursing I	4	0	4
NUR 107	Child Health Nursing I Lab	0	6	2
		14	12	18
SPRING QUARTER				
SOC 201	Introduction to Sociology	3	0	3
NUR 108	Medical-Surgical I	8	0	8
NUR 109	Medical-Surgical I Lab	0	15	5
		11	15	16
SUMMER QUARTER				
NUR 110	Medical-Surgical II	6	0	6
NUR 111	Medical-Surgical II Lab	0	18	6
NUR 112	Seminar I	3	0	3
BIO 135	(Optional Elective)*			
		9	18	15
	TOTAL HOURS	53	55	72

*BIO 135 is required for entry into second-level nursing. This course is generally offered during the summer and fall quarters.

NOTE: For specific policies concerning the nursing program, see the student handbook or the college registrar.

PLASTICS TECHNOLOGY (T-101)
(DIPLOMA OPTION)

CAREER INFORMATION

Upon completion of the one year diploma (four quarters) program, the graduate could operate as a junior product designer, an apprentice tool maker or designer, or a machine operator, inspector, or materials handler.

Upon completion of the second year technical program (seven quarters), the graduate could function in a supervisory capacity for the plastics industry.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
RDG	Reading	2	2	2
T-MAT 101	Technical Math	5	0	5
DFT 113	Blue Print Reading: Mechanical	0	3	1
ISC 102	Industrial Safety	3	0	3
PLA 101	Introduction to Plastics	2	3	3
		12	8	14
WINTER QUARTER				
T-MAT 102	Technical Mathematics	5	0	5
DFT 115	Blueprint Reading: Mechanical	0	3	1
MEC 101	Machine Processes	1	5	3
MEC 217	Engineering Materials and Processing and Testing	3	3	4
PLA 105	Plastic Forming I	2	3	3
		11	14	16
SPRING QUARTER				
MEC 102	Machine Processes	1	5	3
MEC 235	Hydraulics and Pneumatics	3	3	4
PLA 106	Materials Compounding	3	2	4
PLA 107	Plastic Forming II	6	6	8
		13	16	19
SUMMER QUARTER				
ELC 101	Basic Electricity	2	3	3
MEC 103	Machine Processes	1	5	3
PLA 117	Plastic Forming III	3	6	5
PLA 118	Fabricating, Lam., Finishing	3	0	3
PLA 135	Physical Properties of Plastics	2	3	3
		11	17	17
	TOTAL HOURS	47	55	66

TOOL AND DIE (V-048)

CAREER INFORMATION

The tool and die maker provides the foundation of many industries. This individual is highly skilled and possesses a tremendous depth of technical knowledge. This curriculum is designed to start an advanced machinist into the elementary requirements of tool and die making and progress into more complex dies, jigs and fixtures, gages, and other areas.

The program will enable the advanced machinist to compare the machines found in a tool and die shop with those found in the average machine shop. Each student will be required to become highly proficient in the use of the machines used in tool and die making. The related courses are designed to give the student an opportunity to advance knowledge in mathematics, strength of materials, drafting, and hydraulics and pneumatics.

Occupational opportunities are found in metal-working industries, job shops, captive tool rooms, maintenance shops, and a wide variety of other industries using tools, dies, and jigs and fixtures for repetitive production products.

To be eligible for the tool and die program, the student must have completed the machine shop curriculum or have equivalent work experience.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
DFT 1207	Machine Drafting	1	5	3
MAT 1201	Trigonometry	5	0	5
MEC 1201	Machine Processes	3	12	6
		9	17	15
WINTER QUARTER				
MEC 1202	Machine Processes	3	12	7
MEC 1210	Metallurgy	2	3	3
MAT 1202	Uses of Handbook	3	0	3
MEC 1207	Toolmaking	3	3	4
		11	18	17
SPRING QUARTER				
MEC 1203	Machine Processes	3	12	7
DFT 1216	Blueprint Reading	0	3	1
MEC 1205	Strength of Material	2	3	3
MEC 1235	Hydraulics and Pneumatics	2	3	3
		7	21	14
SUMMER QUARTER				
MEC 1204	Machine Processes	3	12	7
MEC 1299	Special Problems (Tools and Molds)	3	6	5
MEC 1214	Tool Design and Planning	2	3	3
		8	21	15
	TOTAL HOURS	35	77	61

UPHOLSTERING (V-082)

CAREER INFORMATION

Upholstering offers both men and women excellent employment opportunities in industry or for self-employment. It is among the most skilled and better paying occupations in the furniture industry. The primary emphasis in the program is upon actual practical experience in the springing up, covering, trimming, cutting, and sewing phases of upholstery. Emphasis throughout is placed upon quality and the development of production speed.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
UPH 1111	Upholstery Materials and Methods I	1	11	5
WINTER QUARTER				
UPH 1112	Upholstery Mat. and Methods II	1	11	5
SPRING QUARTER				
UPH 1113	Upholstery Mat. and Methods III	1	11	5
SUMMER QUARTER				
UPH 1114	Upholstery Sewing I	1	11	5
FALL QUARTER				
UPH 1115	Upholstery Sewing II	1	11	5
WINTER QUARTER				
UPH 1116	Upholstery Cutting I	1	11	5
SPRING QUARTER				
UPH 1117	Upholstery Cutting II	1	11	5
	TOTAL HOURS	7	77	35

WELDING (V-050)

CAREER INFORMATION

The principal duty of the welder who uses manual techniques is to control the fusion of metals by directing the heat from either an electric arc or gas welding torch and to add filler metal where necessary to complete the joint. Welders should possess a great deal of manipulative skill with a knowledge of jigs, mathematics, basic metallurgy, and blueprint reading.

A well-trained welder may find employment in many different industries. Shipbuilding, automotive, aircraft, guided missiles, railroad, tank construction, and pipe fitting industries are examples of manufacturing concerns which employ welders.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
WLD 1120	Welding Theory and Practice	3	12	7
RDG	Reading	2	2	2
DFT 113	Blueprint Reading: Mechanical	0	3	1
MEC 1117	Basic Metals Identification	1	2	2
WLD 1112	Welding Inspection and Codes	3	0	3
		9	19	15

	COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER				
WLD 1121	Welding Theory and Practice	2	18	8
DFT 120	Blueprint Reading: Welding	0	3	1
ENG 1102	Communication Skills	3	0	3
MAT 1101W	Practical Math for Welders	5	0	5
		10	21	17
SPRING QUARTER				
WLD 1123-1	Inert Gas Welding I (TIG)	2	6	4
WLD 1124	Pipe Welding	3	12	7
DFT 121	Pattern Development and Sketching	0	3	1
PHY 1101W	Applied Science	1	3	2
		6	24	14
SUMMER QUARTER				
WLD 1122	Commercial and Industrial Practices	3	9	6
WLD 1125	Certification Practices	3	6	5
WLD 1123-2	Inert Gas Welding II (MIG)	2	6	4
BUS 1103	Small Business Operations	3	0	3
		11	21	18
	TOTAL HOURS	36	85	64

WELDING

*Part-time Curriculum**

BUS 1103	Small Business Operations	3-0-3
DFT 113	Blueprint Reading: Mechanical	3-0-3
DFT 120	Blueprint Reading: Welding	0-3-1
DFT 121	Pattern Devel. & Sketching	0-3-1
ENG 1102	Communications Skills	3-0-3
MAT 1101W	Practical Math for Welders	5-0-5
MEC 1117	Basic Metals Identification	1-2-2
PHY 1101W	Applied Science	1-3-2
RDG	Reading	2-2-2
WLD 1112	Welding Inspection & Codes	3-0-3
WLD 1120-1	Welding Theory & Practice	2-6-4
WLD 1120-2	Welding Theory & Practice	1-6-3
WLD 1121-1	Welding Theory & Practice	1-6-3
WLD 1121-2	Welding Theory & Practice	1-6-3
WLD 1121-3	Welding Theory & Practice	0-6-2
WLD 1122-1	Commercial & Industrial Pr.	2-6-4
WLD 1122-2	Commercial & Industrial Pr.	1-3-2
WLD 1123-1	Inert Gas I	2-6-4
WLD 1123-2	Inert Gas II	2-6-4
WLD 1124-1	Pipe Welding	2-6-4
WLD 1124-2	Pipe Welding	1-6-3
WLD 1125	Certification Practices	3-6-5

*Usually evenings.

OCCUPATIONAL ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS

The associate in applied science degree programs are designed to prepare persons for technician level occupations. More emphasis is given to theory than in diploma courses. Also, roughly one-half of the course requirements are in general education and the sciences underlying the particular occupational area. Caldwell Community College and Technical Institute offers the following associate in applied science degree programs:

BIOMEDICAL EQUIPMENT TECHNOLOGY
BUSINESS ADMINISTRATION
  Pre-financial Management/Accounting Option
  Industrial Management Option
  Personnel Administration Option
  Business Management Option
DRAFTING AND DESIGN TECHNOLOGY
EARLY CHILDHOOD EDUCATION
ELECTRONIC DATA SYSTEMS
FURNITURE PRODUCTION TECHNOLOGY
INDUSTRIAL MAINTENANCE ENGINEERING
LIBRARY MEDIA TECHNICAL ASSISTANT
NUCLEAR MEDICINE TECHNOLOGY
NURSING — ASSOCIATE DEGREE
PLASTICS TECHNOLOGY*
PUBLIC ADMINISTRATION
RADIOLOGIC TECHNOLOGY
RECREATION LEADERSHIP (Therapeutic and Community)
SECRETARIAL SCIENCE
  Executive Secretary Option
  Medical Secretary Option

*Approved but not offered in 1980-81.

BIOMEDICAL EQUIPMENT TECHNOLOGY (T-158)

CAREER INFORMATION

Because of the physician's increased use of complex equipment for diagnosis, regulation of body functions, and monitoring and reading of patient problems and progress, well trained persons are needed for medical equipment maintenance and repair. A biomedical technician must be able to install, operate, repair, and maintain electronic equipment such as x-ray machines, incubators, electronic thermometers, pacemakers, radio frequency surgical devices, cardiac pressure monitors, sterilizers, operating room lamps and tables, automatic culture counters, and pulmonary equipment. The biomedical technician may also be called upon to maintain or make emergency repairs on surgical equipment in the hospital operating room, to instruct hospital personnel in the safe and correct use of equipment, and to be involved in evaluation and testing of new electromedical devices.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ELC 112	Alternating and Direct Current	2	6	4
T-MAT 101	Technical Math	5	0	5
ENG 101	Grammar and Composition	3	2	3
PHY 101	Physics: Properties of Matter	3	2	4
		13	10	16
WINTER QUARTER				
ELN 124	Electronics Fundamentals	2	4	4
ENG 102	English Composition	3	0	3
T-MAT 102	Technical Math	5	0	5
PHY 102	Physics: Work, Energy, Power	3	2	4
		13	6	16
SPRING QUARTER				
ELN 134	Intermediate Electronics	2	4	4
T-MAT 103	Technical Math	5	0	5
MEC 235	Hydraulics and Pneumatics	3	3	4
ENG 104	Report Writing	3	0	3
		13	7	16
SUMMER QUARTER				
ELN 224	Advanced Electronics	2	4	4
BIO 108	Human Anatomy and Physiology	3	2	4
ELN 234	Digital Electronics	2	4	4
BMT 254	Biomedical Instrumentation I	2	4	4
		9	14	16
FALL QUARTER				
BIO 208	Introduction to Study of Diseases	3	0	3
BMT 264	Biomedical Instrumentation II	2	4	4
BMT 274	X-Ray and Nuclear Medicine	2	4	4
BMT 201	Medical Institutions	3	0	3
Elective		3	0	3
		13	8	17
WINTER QUARTER				
BMT 271	Biomedical Instrumentation III	2	4	4
BMT 244	Safety Inspections and Standards	2	4	4
BMT 280	Medical Circuit Troubleshooting	2	4	4
Elective		3	0	3
		9	12	15
SPRING QUARTER				
BMT 228	Practicum	0	39	13
	TOTAL HOURS	70	96	109

BUSINESS ADMINISTRATION (T-018)

CAREER INFORMATION

The graduate of the business administration curriculum may enter a variety of career opportunities from beginning office clerk to management trainee. The duties and responsibilities of the graduate vary in different firms. Positions are potentially available in business, accounting, advertising, banking, credit, finance, retailing, wholesaling, hotel, tourism, industry, transportation, and communications.

Through the department of business administration, students may obtain majors in general business, financial management/accounting, personnel management, and industrial management.

INDUSTRIAL MANAGEMENT OPTION

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
MAT 110	Business Math	5	0	5
BUS 101	Introduction to Business	5	0	5
BUS 102	Typewriting	2	3	3
BUS 120	Principles of Accounting	3	2	4
		18	7	20
WINTER QUARTER				
ENG 102	English Composition	3	0	3
ENG 105	Business Communication	3	0	3
ECO 108	Consumer Economics	3	0	3
BUS 110	Office Machines	2	2	3
BUS 115	Business Law	3	0	3
BUS 121	Principles of Accounting	3	2	4
		17	4	19
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
EDP 104	Introduction to Data Systems	3	2	4
BUS 116	Business Law	3	0	3
BUS 122	Principles of Accounting	3	2	4
BUS 272	Principles of Supervision	3	0	3
		15	4	17
FALL QUARTER				
ECO 201	Principles of Economics I	3	0	3
PSY 201	General Psychology	3	0	3
SPH 101	Fundamentals of Speech	3	0	3
BUS 225	Cost Accounting	3	2	4
BUS 233	Personnel Management	3	0	3
		15	2	16
WINTER QUARTER				
PSY 206	Applied Psychology	3	0	3
ISC 102	Industrial Safety	3	0	3
BUS 285	Cost Records and Estimates	2	0	2
Elective		3	0	3
Elective		3	0	3
		14	0	14

	COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER				
ECO 204	Industrial Relations	3	0	3
ISC 202	Quality Control	3	0	3
BUS 235	Business Management	3	0	3
ISC 103	Production Control	1	3	2
Elective		3	0	3
		13	3	14
	TOTAL HOURS	92	20	100

FINANCIAL MANAGEMENT/ACCOUNTING OPTION

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
MAT 110	Business Math	5	0	5
BUS 101	Introduction to Business	5	0	5
BUS 102	Typewriting	2	3	3
BUS 120	Principles of Accounting	3	2	4
		18	7	20
WINTER QUARTER				
ENG 102	English Composition	3	0	3
ENG 105	Business Communication	3	0	3
ECO 108	Consumer Economics	3	0	3
BUS 110	Office Machines	2	2	3
BUS 115	Business Law	3	0	3
BUS 121	Principles of Accounting	3	2	4
		17	4	19
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
EDP 104	Introduction to Data Systems	3	2	4
BUS 116	Business Law	3	0	3
BUS 122	Principles of Accounting	3	2	4
BUS 272	Principles of Supervision	3	0	3
		15	4	17
FALL QUARTER				
ECO 201	Principles of Economics I	3	0	3
PSY 201	General Psychology	3	0	3
BUS 220	Intermediate Accounting	3	2	4
BUS 225	Cost Accounting	3	2	4
BUS 275	Programming	3	0	3
Elective		3	0	3
		18	4	20

	COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER				
ECO 202	Principles of Economics II	3	0	3
SOC 201	Introduction to Sociology	3	0	3
BUS 219	Credit Procedures	3	0	3
BUS 221	Intermediate Accounting II	3	2	4
BUS 229	Taxes I	3	2	4
		15	4	17
SPRING QUARTER				
SOC 203	Contemp. Problems and Social Issues	3	0	3
BUS 222	Intermediate Accounting III	3	2	4
BUS 230	Taxes II	3	2	4
BUS 269	Auditing	3	2	4
BUS 276	Money and Banking	3	0	3
Elective		3	0	3
		18	6	21
	TOTAL HOURS	101	29	114

PERSONNEL ADMINISTRATION OPTION

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
MAT 110	Business Math	5	0	5
BUS 101	Introduction to Business	5	0	5
BUS 102	Typewriting	2	3	3
BUS 120	Principles of Accounting	3	2	4
		18	4	20
WINTER QUARTER				
ENG 102	English Composition	3	0	3
ENG 105	Business Communication	3	0	3
ECO 108	Consumer Economics	3	0	3
BUS 110	Office Machines	2	2	3
BUS 115	Business Law	3	0	3
BUS 121	Principles of Accounting	3	2	4
		17	4	19
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
EDP 104	Introduction to Data Systems	3	2	4
BUS 116	Business Law	3	0	3
BUS 122	Principles of Accounting	3	2	4
BUS 272	Principles of Supervision	3	0	3
		15	4	17

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ECO 201	Principles of Economics I	3	0	3
PSY 201	General Psychology	3	0	3
SPH 101	Fundamentals of Speech	3	0	3
BUS 123	Business Finance	3	0	3
BUS 233	Personnel Management	3	0	3
Elective		3	0	3
		18	0	18
WINTER QUARTER				
ECO 202	Principles of Economics II	3	0	3
PSY 202	General Psychology	3	0	3
SOC 201	Introduction to Sociology	3	0	3
BUS 124	Business Finance	3	0	3
Elective		3	0	3
		15	0	15
SPRING QUARTER				
ECO 204	Industrial Relations	3	0	3
PSY 206	Applied Psychology	3	0	3
SOC 203	Contemp. Problems and Social Issues	3	0	3
BUS 235	Business Management	3	0	3
BUS 271	Office Management	3	0	3
ISC 102	Industrial Safety	3	0	3
		18	0	18
	TOTAL HOURS	101	12	107

BUSINESS MANAGEMENT OPTION

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
MAT 110	Business Math	5	0	5
BUS 101	Introduction to Business	5	0	5
BUS 102	Typewriting	2	3	3
BUS 120	Principles of Accounting	3	2	4
		18	7	20
WINTER QUARTER				
ENG 102	English Composition	3	0	3
ENG 105	Business Communication	3	0	3
ECO 108	Consumer Economics	3	0	3
BUS 110	Office Machines	2	2	3
BUS 115	Business Law	3	0	3
BUS 121	Principles of Accounting	3	2	4
		17	4	19
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
EDP 104	Introduction to Data Systems	3	2	4
BUS 116	Business Law	3	0	3
BUS 122	Principles of Accounting	3	2	4
BUS 272	Principles of Supervision	3	0	3
		15	4	17
FALL QUARTER				
ECO 201	Principles of Economics I	3	0	3
SPH 101	Fundamentals of Speech	3	0	3
BUS 123	Business Finance	3	0	3
BUS 239	Marketing	5	0	5
BUS 243	Advertising	3	2	4
		17	2	18
WINTER QUARTER				
ECO 202	Principles of Economics II	3	0	3
BUS 124	Business Finance	3	0	3
BUS 219	Credit Procedures	3	0	3
BUS 229	Taxes I	3	2	4
Elective		3	0	3
		15	2	16
SPRING QUARTER				
BUS 232	Sales Development	3	0	3
BUS 235	Business Management	3	0	3
BUS 247	Business Insurance	3	0	3
BUS 276	Money and Banking	3	0	3
Elective		3	0	3
		15	0	15
	TOTAL HOURS	97	19	105

DRAFTING AND DESIGN TECHNOLOGY (T-043)
(DEGREE OPTION)

CAREER INFORMATION

This curriculum is designed to prepare a graduate to enter the world of work in the mechanical drafting field.

Upon completion of the first four quarters, students will be prepared to enter the field on the trade level. Students will study basic drafting in the first two quarters. From there they will go into the mechanical specialities for the remaining two quarters.

Related courses are offered in a sequential manner to enable students to progress in a chronological order according to the building method from basics to the advanced.

The person completing the course of study will be expected to communicate with people in architecture, mechanical engineering, mechanical drafting, tool and die making, skilled positions, unskilled positions, selling, or construction.

A person need not have a high school diploma in order to enter this course and receive a diploma. However, persons planning to continue for the fifth and sixth quarters and receive an A.A.S. degree must have a high school diploma or successfully pass the high school proficiency.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
T-MAT 101	Technical Math	5	0	5
PHY 101	Physics: Properties of Matter	3	2	4
DFT 101	Technical Drafting	2	8	5
MEC 101	Machine Processes	1	5	3
		14	17	20
WINTER QUARTER				
ENG 102	English Composition	3	0	3
T-MAT 102	Technical Math	5	0	5
PHY 102	Physics: Work, Energy, Power	3	2	4
DFT 102	Technical Drafting	2	8	5
MEC 102	Machine Processes	1	5	3
		14	15	20
SPRING QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
T-MAT 103	Technical Math	5	0	5
PHY 103	Physics: Electricity	3	2	4
PHY 106	Applied Mechanics	5	0	5
DFT 103	Technical Drafting	2	9	5
		18	11	22
FALL QUARTER				
DFT 201	Technical Drafting	3	9	6
DFT 204	Descriptive Geometry	2	4	4
MEC 205	Strength of Materials	3	2	4
MEC 210	Physical Metallurgy	3	3	4
		11	18	18

	COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER				
DFT 205	Design Drafting I	2	8	5
DFT 211	Mechanisms	3	2	4
MEC 211	Physical Metallurgy	3	3	4
WLD 101	Welding Practices	3	0	3
Elective		3	0	3
		14	13	19
SPRING QUARTER				
DFT 206	Design Drafting II	2	8	5
MEC 235	Hydraulics and Pneumatics	3	3	4
Elective		3	0	3
Elective		3	0	3
Elective		3	0	3
		14	11	18
	TOTAL HOURS	85	85	117

EARLY CHILDHOOD EDUCATION (T-073)

CAREER INFORMATION

The early childhood specialist curriculum is designed to fill the need for aides and technicians in a variety of job situations. The curriculum is a technical program including courses designed to give a broad general education in human growth and development and experience working with preschool children.

The early childhood specialist program is structured so that students may exit or reenter at two levels, depending on their needs, interests, and abilities. Students will be given the basic skills needed to be a competent assistant in a childcare program or continue on to acquire additional skills to be a paraprofessional in a variety of child development institutions.

The responsibilities of the early childhood specialist as a paraprofessional are quite varied, requiring a person with good inter-personal skills and adaptability as well as love for children to function effectively in this position. The major function of the early childhood specialist is the care and guidance of young children. This includes a concern for the mental, social, physical, and emotional growth and development of the child. In a school or a child development center this may include outdoor play, storytelling, language and communication skills, experiences with music, art and dramatic activities, field trips, food preparation and service, and other routines.

Job titles vary with different agencies and schools. Some of the terms used are educational assistant, teacher aide, childcare worker, early childhood specialist, and auxiliary educational personnel. Still others use assistant teacher or just teacher. Jobs for early childhood education assistants are found in hospitals, institutions for exceptional children, 24-hour care units, Headstart programs, day care and child development centers, private or cooperative nurseries and pre-kindergarten programs, and private schools.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
PSY 201	General Psychology	3	0	3
EDU 202	Pre-school Education	3	0	3
PED 101	Physical Activities for Children	0	2	1
PED 180	Personal and Community Health	3	0	3
Elective		3	0	3
		15	4	16
WINTER QUARTER				
ENG 102	English Composition	3	0	3
PSY 210	Human Growth and Development	3	0	3
MUS 110	Recreational Music	3	0	3
SOC 101	Community Resources	3	0	3
PED 102	Physical Activities for Children	0	2	1
PED 185	First Aid and Safety	3	0	3
		15	2	16
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
PSY 204	Child Behavior	3	0	3
PED 103	Physical Activities for Children	0	2	1
EDU 111	Seminar and Practicum	2	6	4
Elective		3	0	3
Elective		3	0	3
		14	8	17
FALL QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
ART 127	Arts and Crafts I	1	4	3
SOC 205	Marriage and Family	3	0	3
EDU 203	Health and Nutrition	3	0	3
EDU 230	Seminar and Practicum	2	6	4
		12	10	16
WINTER QUARTER				
SOC 201	Intro. to Sociology	3	0	3
BUS 195	Small Business Management	3	0	3
PSY 215	Intro. to Exceptional Individuals	3	0	3
EDU 231	Seminar and Practicum	2	6	4
MAT 110	Business Mathematics	5	0	5
		16	6	18

	COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER				
EDM 206	Children's Literature	3	0	3
DRA 110	Recreational Drama	1	4	3
GEO 202	Regional Geography	3	0	3
SCI 100	Nature Study	3	0	3
EDU 232	Seminar and Practicum	2	6	4
		12	10	16
	TOTAL HOURS	84	40	99

ELECTRONIC DATA SYSTEMS (T-022)

(DEGREE OPTION)

CAREER INFORMATION

Data systems specialists often are called upon to perform many varied tasks in a computer center. They are required frequently to operate and program the computer system. They may be a member of a programming team with the responsibility for preparing programs for computer solution through joint effort. They may be asked to transform the general requirements of accountants, business managers, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals data systems specialists may be required to update, revise, correct, and write programs as the needs of the management dictate.

Upon completion of the curriculum, the graduate is prepared to participate in several areas of an interesting and rewarding career.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
BUS 110	Office Machines	2	2	2
BUS 120	Principles of Accounting	3	2	4
EDP 101	Computers and Programming I	4	4	6
		13	10	16
WINTER QUARTER				
ENG 102	English Composition	3	0	3
MAT 110	Business Math	5	0	5
BUS 121	Principles of Accounting	3	2	4
EDP 102	Computers and Programming II	4	4	6
		15	6	18
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
BUS 101	Introduction to Business	5	0	5
BUS 122	Principles of Accounting	3	2	4
EDP 103	Computers and Programming III	4	4	6
		15	6	18

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
MAT 214	Statistics	5	0	5
EDP 204	Computers and Programming IV	4	4	6
BUS 225	Cost Accounting	3	2	4
		15	6	18
WINTER QUARTER				
EDP 214	Practicum I	0	15	5
EDP 208	Systems Orientation	4	4	6
BUS 229	Taxes I	3	2	4
BUS 219	Credit Procedures	3	0	3
		10	21	18
SPRING QUARTER				
EDP 217	Data Processing Project	1	8	5
EDP 215	Practicum II	0	15	5
EDP 221	Programming & Lang. Survey	2	2	3
ISC 103	Production Control	1	3	2
		4	28	15
	TOTAL HOURS	72	77	103

FURNITURE PRODUCTION TECHNOLOGY (T-075)

(DEGREE OPTION)

CAREER INFORMATION

The graduate of this program may serve in many areas of the local furniture industry. These areas would include assistant to the plant manager, methods improvement, quality control inspector, cost estimator, product engineer trainee, production control trainee, material control supervisor, department supervisor, production scheduling and control, material testing, employee trainer, and industry safety.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	0	3
T-MAT 100	Mathematics	3	0	3
DFT 101F	Technical Drafting	2	6	4
FUR 104	Characteristics of Wood	3	0	3
FUR 108	Production Equipment I	4	0	4
		15	6	17
WINTER QUARTER				
DFT 102F	Technical Drafting	2	6	4
FUR 109	Production Equipment II	4	0	4
FUR 102	Construction & Billing I	1	3	2
FUR 112	Routing, Scheduling and Process	2	2	3
		9	11	13

	COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER				
FUR 103	Construction & Billing II	1	3	2
FUR 106	Abrasive Materials & Glues	2	2	3
ISC 203	Motion Study	2	2	3
PSY 206	Applied Psychology	3	0	3
ISC 102	Industrial Safety	3	0	3
		11	7	14
SUMMER QUARTER				
BUS 285	Cost Records and Estimates	2	0	2
ISC 103	Production Control	1	3	2
ISC 201	Industrial Organization and Management	3	0	3
ISC 202	Quality Control	3	0	3
ISC 207	Foremanship Supervision	3	0	3
FUR 107	Finishing Methods and Material	2	2	3
		14	5	16
FALL QUARTER				
ENG 102	English Composition	3	0	3
DFT 103F	Technical Drafting	2	6	4
BUS 101	Introduction to Business	5	0	5
SPH 101	Fundamentals of Speech	3	0	3
		13	6	15
WINTER QUARTER				
BUS 272	Princ. of Supervision	3	0	3
ENG 104	Report Writing	3	0	3
ECO 201	Princ. of Economics I	3	0	3
Elective		3	0	3
		12	0	12
SPRING QUARTER				
ISC 204	Value Analysis	3	0	3
Elective		3	0	3
Elective		3	0	3
Elective		3	0	3
		12	0	12
	TOTAL HOURS	86	35	99

INDUSTRIAL MAINTENANCE ENGINEER (T-119)
(DEGREE OPTION)

CAREER INFORMATION

This program is designed to prepare its graduates for employment as industrial maintenance engineers. Training in theory and practical skills will provide the knowledge needed to inspect, diagnose, repair, and install industrial, electrical, and mechanical equipment. Special emphasis will be given to following directions from blue prints and sketches, using hand tools and metal-working machines, and checking the work with measuring and testing instruments. The industrial maintenance engineer curriculum is flexible in that courses in major fields may be supplemented by a wide selection of subjects to related technologies such as welding, machine shop, hydraulics and pneumatics, metallurgy, and electricity.

Upon completion of the first four quarters, the student may receive a diploma or continue in the remaining two quarters and qualify for an associate in applied science degree.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
T-MAT 100	Mathematics	3	0	3
ELC 112	Alternating and Direct Current	2	6	4
ISC 102	Industrial Safety	3	0	3
MEC 101	Machine Processes	1	5	3
WLD 120	Welding, Oxyacetylene	1	3	2
		10	14	15
WINTER QUARTER				
T-MAT 201	Mathematics (Decimal-Metric Conversion)	3	0	3
DFT 104	Blueprint Reading: Mechanical	0	3	1
ELC 113	Industrial Electronic Control	2	6	4
MEC 102	Machine Processes	1	5	3
WLD 121	Arc Welding	1	6	3
		7	20	14
SPRING QUARTER				
AHR 101	Air Conditioning and Refrigeration	3	3	4
DFT 105	Blueprint Reading and Sketching	0	3	1
ELC 119	Alter. & Direct Current Mach. Conts.	2	6	4
BUS 235	Business Management	3	0	3
MEC 235	Hydraulics and Pneumatics	3	3	4
		11	15	16
FALL QUARTER				
ELC 121	Electrical Trouble-Shooting	2	3	3
MEC 114	Shop Practice	1	6	3
MEC 210	Physical Metallurgy	3	3	4
MEC 298	Mechanical Problems Solving	2	3	3
WLD 122	Commercial and Inc. Practice	2	3	3
		10	18	16

	COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER				
ENG 101	Grammar and Composition	3	2	3
MEC 222	Rigging and Material Handling	2	3	3
MEC 299	General Mainten. & Repair	2	3	3
PLA 225	Practicum	0	6	2
Elective		3	0	3
		10	14	14
SPRING QUARTER				
BUS 272	Principles of Supervision	3	0	3
SPH 101	Fundamentals of Speech	3	0	3
PSY 206	Applied Psychology	3	0	3
ISC 202	Quality Control	3	0	3
ISC 205	Maintenance Management	3	0	3
Elective		3	0	3
Elective		3	0	3
		21	0	21
	TOTAL HOURS	69	81	96

LIBRARY MEDIA TECHNICAL ASSISTANT (T-080)

CAREER INFORMATION

Graduates from this program function in a supportive role, understand basic library organization, and accept the realities of library or media work under the general supervision of a librarian or media specialist. They may be expected to develop and maintain a working knowledge of policies, practices, and resources of any given library or information center. They have acquired a proficiency in production of instructional materials and the operation of equipment and its daily maintenance.

As assistants, graduates are not prepared to assume administrative or teaching responsibilities, but they do learn to use the basic terminology and to supervise technical and clerical aspects of all library procedures and routines. The occupational aspect of the program trains people for duties related to such functions as the mechanical preparation of library and audiovisual material; the physical maintenance of both print and non-print materials, files, and equipment; circulation work; acquisitions work; cataloging (except original cataloging); and work involving direct public assistance at information and ready-reference service desks.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
MAT 110	Business Math	5	0	5
BUS 102	Typewriting	2	3	3
EDM 101	Introduction to Libraries and Information Centers	3	0	3
Elective	(Social Science)	3	0	3
		16	5	17

	COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER				
ENG 102	English Composition	3	0	3
BUS 103	Typewriting	2	3	3
EDM 103	Library-Media Resources (Ref.)	3	0	3
PSY 206	Applied Psychology	3	0	3
MUS 101	Music Appreciation	3	0	3
		14	3	15
SPRING QUARTER				
ENG 103	Introduction to Literature	3	0	3
EDP 104	Introduction to Data Processing	3	2	4
EDM 102	Library Processes I (Selection)	3	0	3
EDM 104	AV Equipment and Production	3	2	4
ART 101	Art Appreciation	3	0	3
		15	4	18
FALL QUARTER				
EDM 201	Library Processes II (Cataloging)	3	2	4
EDM 202	Library Media Procedures (Circulation)	3	2	4
BUS 120	Accounting	3	2	4
Elective	(Humanities)	3	0	3
Elective	(Social Science)	3	0	3
		15	6	18
WINTER QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
POL 203	Government — State and Local	3	0	3
EDM 203	Practicum	2	6	4
Elective	(Humanities)	3	0	3
Elective		3	0	3
		14	6	16
SPRING QUARTER				
GEO 202	Regional Geography	3	0	3
SCI 100	Natural Environment	3	0	3
EDM 104	Practicum	2	6	4
EDM 206	Survey of Children's Literature	3	0	3
Elective		3	0	3
		14	6	16
	TOTAL HOURS	88	30	100

NUCLEAR MEDICINE TECHNOLOGY (T-104)

CAREER INFORMATION

Since the field of nuclear medicine is developing so rapidly, there is a growing demand for well-trained, highly motivated, adaptable men and women in it.

Manpower studies indicate the need to train more than 1,000 additional technicians in the field each year, and this number may be even larger with the continuing development and application of nuclear medicine technology. The major trends in nuclear medicine which may affect the number of technologists needed over the next few years include the use of faster scanners and cameras for imaging procedures, increased numbers of dynamic function studies, the development of materials labeled with radionuclides with shorter half-lives, and the use of more complex radio-pharmaceuticals and more automated data-handling facilities, including computers.

With the increasing demand for nuclear medicine sevices, opportunities are available in large and small hospitals, both public and private. In addition, the armed forces both train and employ nuclear medicine technologists. Also, the growing number of NMT training programs in hospitals, community colleges, and technical institutes provide openings for instructors in nuclear medicine technology.

Graduates of the nuclear medicine technology program will receive an associate in applied science degree and will be eligible to take the national registry exam. Certified radiologic technologists, associate degree nurses, and medical technologists may enter the program as advanced students for a 12-month certificate course.

	COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER				
RDT 101	Introduction to Radiologic Technology	2	0	1
BIO 125	Terminology I	1	0	1
RDT 102	Basic Patient Care	3	3	4
RDT 103	Radiation Protection	1	0	1
		7	3	8
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
MAT 101	College Math	3	0	3
BIO 108	Human Anatomy and Physiology	3	2	4
CHM 101	General Chemistry I	3	3	4
NMT 101	Nuclear Medicine Technology I	1	0	1
BIO 126	Terminology II	1	0	1
		14	7	16
WINTER QUARTER				
ENG 102	Composition	3	0	3
BIO 109	Human Anatomy and Physiology	3	2	4
CHM 102	General Chemistry	3	3	4
PHY 107	Physics	3	2	4
NMT 102	Nuclear Medicine Technology II	1	0	1
BIO 208	Introduction to Study of Disease	3	0	3
		16	7	19
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
CHM 202	Organic Chemistry	3	2	4
PHY 108	Physics	3	2	4
PSY 201	General Psychology	3	0	3
NMT 103	Nuclear Medicine Technology III	1	0	1
RDT 115	Radiographic Processing	2	0	2
		15	4	17

	COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER				
PED 185	First Aid and Safety	3	0	3
SPH 101	Introduction to Speech	3	0	3
CHM 203	Biochemistry	3	2	4
BIO 209	Radiobiology	3	0	3
NMT 104	Nuclear Medicine Technology IV	2	0	2
NMT 129	Practicum I	0	12	4
		14	14	19
FALL QUARTER				
NMT 116	Nuclear Physics	2	0	2
NMT 269	Practicum II	0	24	8
NMT 111	Principles of Nuclear Medicine I	2	0	2
NMT 225	Introduction to Radioimmunoassay	1	2	2
NMT 268	Open Lab Practicum I	0	6	2
		5	32	16
WINTER QUARTER				
NMT 274	Practicum III	0	24	8
NMT 230	Nuclear Medicine Instrumentation I	3	2	4
NMT 221	Principles of Nuclear Medicine II	2	0	2
NMT 223	Radiopharmaceuticals I	2	0	2
NMT 117	Health Physics (Radiation Protection)	1	0	1
NMT 273	Open Lab Practicum II	0	6	2
		8	32	19
SPRING QUARTER				
NMT 279	Practicum IV	0	24	8
NMT 240	Nuclear Medicine Instrumentation II	3	2	4
NMT 241	Principles of Nuclear Medicine III	2	0	2
NMT 233	Radiopharmaceuticals II	2	0	2
NMT 289	Radiobiology	1	0	1
NMT 278	Open Lab Practicum III	0	6	2
		8	32	19
SUMMER QUARTER				
NMT 284	Practicum V	0	24	8
NMT 251	Principles of Nuclear Medicine IV	2	0	2
NMT 290	Nuclear Medicine Technology Seminar	2	0	2
NMT 283	Open Lab Practicum IV	0	6	2
		4	30	14
	TOTAL HOURS	91	161	147

NURSING — ASSOCIATE DEGREE (T-059)
(DEGREE OPTION)

CAREER INFORMATION

Graduates of accredited programs of nurse education are prepared to function as beginning practitioners in a variety of situations, including hospitals; nursing homes; clinics; doctors', dentists', and veterinarians' offices; industry; and in some instances, public health facilities.

A student enrolled in the associate degree nursing program has career options at two points during the training. Upon successful completion of the first year, the student is prepared to practice as a practical nurse and is eligible for practical nurse licensing examinations. The student is also eligible to apply for the second year of the nursing program.

Upon successful completion of the second year, the student is prepared to practice with technical competence, is eligible for registered nurse licensing examinations, and qualifies for an associate degree in nursing. These examinations are administered by the North Carolina Board of Nursing and are given twice each year, in February and July.

FIRST LEVEL — Practical Nursing

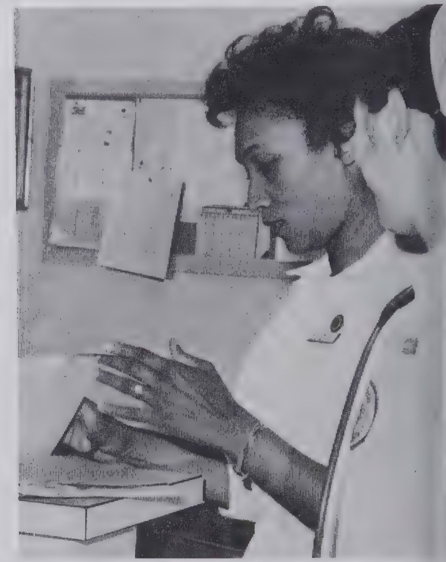
	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
BIO 130	Basic Life Science	4	2	5
PSY 201	General Psychology	3	0	3
NUR 101	Fundamentals of Nurisng	6	6	9
NUR 102	Nutrition	3	0	3
		19	10	23
WINTER QUARTER				
PSY 210	Human Growth and Development	3	0	3
NUR 103	Pharmacology	3	0	3
NUR 104	Maternal-Infant Health I	4	0	4
NUR 105	Maternal-Infant Health I Lab	0	6	2
NUR 106	Child Health Nursing I	4	0	4
NUR 107	Child Health Nursing I Lab	0	6	2
		14	12	18
SPRING QUARTER				
SOC 201	Introduction to Sociology	3	0	3
NUR 108	Medical-Surgical I	8	0	8
NUR 109	Medical-Surgical I Lab	0	15	5
		11	15	16
SUMMER QUARTER				
NUR 110	Medical-Surgical II	6	0	6
NUR 111	Medical-Surgical II Lab	0	18	6
NUR 112	Seminar I	3	0	3
BIO 135	(Optional Elective)*			
		9	18	15

*BIO 135 is required for entry into second level nursing. This course is generally offered during summer and fall quarters.

SECOND LEVEL — Registered Nursing

	COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER				
BIO 108	Human Anatomy and Physiology I	3	2	4
NUR 200	Psychiatric Nursing	6	0	6
NUR 201	Psychiatric Nursing Lab	0	9	3
PSY 213	Abnormal Psychology	3	0	3
		12	11	16
SPRING QUARTER				
BIO 109	Human Anatomy and Physiology II	3	2	4
NUR 202	Maternal-Infant Health II	4	0	4
NUR 203	Maternal-Infant Health II Lab	0	6	2
NUR 204	Child Health Nursing II	4	0	4
NUR 205	Child Health Nursing II Lab	0	6	2
		11	14	16
SUMMER QUARTER				
ENG 102	English Composition	3	0	3
NUR 206	Medical-Surgical III	6	0	6
NUR 207	Medical-Surgical III Lab	0	15	5
		9	15	14
FALL QUARTER				
ENG 103 or ENG 104	Introduction to Literature or Report Writing	3	0	3
NUR 208	Medical-Surgical IV	6	0	6
NUR 209	Medical-Surgical IV Lab	0	18	6
NUR 210	Seminar II	3	0	3
		12	18	18
	TOTAL HOURS	97	113	136

NOTE: For specific policies concerning the nursing program, see the student handbook or the college registrar.



PLASTICS TECHNOLOGY (T-101)
(DEGREE OPTION)

CAREER INFORMATION

Upon completion of the diploma program, the graduate could operate as a junior product designer, an apprentice tool maker or designer, machine operator, inspector, or materials handler.

Upon completion of the degree program, the graduate could function in a supervisory capacity for the plastics industry.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 100	Grammar	3	0	3
T-MAT 101	Technical Math	5	0	5
DFT 104	Blueprint Reading: Mechanical	0	3	1
PLA 101	Introduction to Plastics	2	3	3
ISC 102	Industrial Safety	3	0	3
		13	6	15
WINTER QUARTER				
T-MAT 102	Technical Math	5	0	5
DFT 105	Blueprint Reading & Sketching	0	3	1
MEC 101	Machine Processes	1	5	3
MEC 217	Engin. Materials & Proc. & Testing	3	3	4
PLA 105	Plastic Forming I	2	6	4
		11	17	17
SPRING QUARTER				
MEC 102	Machine Processes	1	5	3
MEC 235	Hydraulics & Pneumatics	3	3	4
PLA 106	Materials Compounding	3	2	4
PLA 107	Plastic Forming II	6	6	8
		13	16	19
FALL QUARTER				
ELC 101	Basic Electricity	2	3	3
MEC 103	Machine Processes	1	5	3
PLA 117	Plastics Forming III	3	6	5
PLA 118	Fabricating, Lamination, Finishing	3	0	3
PLA 135	Physical Properties of Plastics	2	3	3
		11	17	17
WINTER QUARTER				
ENG 101	Grammar & Composition	3	2	3
BUS 272	Principles of Supervision	3	0	3
MEC 210	Physical Metallurgy	3	3	4
PLA 219	Plastic Mold Design I	1	3	2
ISC 103	Production Control	1	3	2
Elective		3	0	3
		14	11	17

	COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER				
ENG 102	English Composition	3	0	3
MEC 207	Tool Making	3	3	4
PLA 220	Mold Design II	2	6	4
ISC 201	Ind. Organ. & Management	3	0	3
Elective		3	0	3
		14	9	17
SUMMER QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
MEC 213	Production Planning	3	3	4
MEC 237	Control Systems	3	3	4
PLA 225	Practicum	0	6	2
Elective		3	0	3
		12	12	16
	TOTAL HOURS	88	88	118

PUBLIC ADMINISTRATION (T-146)

CAREER INFORMATION

This career program is designed to prepare individuals for mid-management level positions in state and local governments and non-profit organizations. It is geared to prepare individuals currently employed in the public sector for advancement opportunities, as well as to provide for those persons desiring to prepare for a future career in governmental or non-profit organizational agencies.

The program is designed to enable the student to enter the public sector with skills that make him/her productive immediately. It provides the career employee with motivation and advantages for further advancement in the career service of the local government.

The program offers the student an opportunity to begin or to continue a career in the public administration with an associate in applied science degree or to take courses for personal enrichment.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	English Composition	3	2	3
BUS 120*	Principles of Accounting	3	2	4
ECO 201*	Principles of Economics I	3	0	3
BUS 119	Introduction to Public Administration	3	0	3
Elective		3	0	3
		15	4	16
WINTER QUARTER				
ENG 102	English Composition	3	0	3
POL 201	American Federal Government	3	0	3
BUS 121*	Principles of Accounting	3	2	4
ECO 202*	Principles of Economics II	3	0	3
BUS 233	Personnel Management	3	0	3
BUS 115	Business Law	3	0	3
		18	2	19

	COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
BUS 122	Principles of Accounting	3	2	4
POL 203	Government — State and Local	3	0	3
EDP 104	Introduction to Data Processing	3	2	4
BUS 238	Problems of Public Administration	3	0	3
Elective		3	0	3
		18	4	20
FALL QUARTER				
SOC 201	Introduction to Sociology	3	0	3
SOC 203	Contemporary Problems and Social Issues	3	0	3
BUS 277	Application in Public Administration I	2	6	4
BUS 240	Public Finance	3	0	3
Elective		3	0	3
		14	6	16
WINTER QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
PSY 201	General Psychology	3	0	3
BUS 272	Principles of Supervision	3	0	3
BUS 278	Application in Public Administration II	2	6	4
BUS 282*	Governmental Accounting	3	0	3
		14	6	16
SPRING QUARTER				
SOC 101	Community Resources	3	0	3
PSY 202	General Psychology	3	0	3
BUS 279	Internship in Public Administration	1	18	7
Elective		3	0	3
		10	18	16
	TOTAL HOURS	89	40	103

*In addition to the electives, proficiency credit may be substituted for up to 26 hours in the areas identified.

RADIOLOGIC (X-RAY) TECHNOLOGY (T-061)

CAREER INFORMATION

The advance of scientific knowledge in the medical field and the increase in services offered by hospitals and health centers have greatly increased the need for competent radiographers. The radiographers perform an important function in the rapidly growing branch of medicine known as radiology. Radiographers are support personnel for radiologists, and they specialize in the use of X-rays and other forms of ionizing radiation.

The radiographer should like people and be able to attend the sick and disabled with tact and sympathy. He/she should be dependable, accurate, and determined to continue with education beyond certification to keep up with new developments in the field.

The program in radiologic technology offered by Caldwell Community College and Technical Institute provides an opportunity for immediate employment as well as for continuing one's education at a senior institution or in programs of nuclear medicine and radiation therapy. Graduates of the associate in applied science degree program are eligible to take the American Registry in Radiologic Technology examination and, upon successful completion of this test, may become a registered radiographer.

	COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER				
RDT 101	Introduction to Radiologic Technology	2	0	2
BIO 135	Medical Terminology I	1	0	1
RDT 102	Basic Patient Care	3	3	4
RDT 103	Radiation Protection I	1	0	1
		7	3	8
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
MAT 101	College Math	3	0	3
BIO 108	Human Anatomy and Physiology I	3	2	4
RDT 110	Introduction to Radiographic Technique	2	1	2
RDT 111	Radiographic Procedures I — Extremities	5	10	8
BIO 126	Medical Terminology II	1	0	1
		17	15	21
WINTER QUARTER				
ENG 102	English Composition	3	0	3
PHY 107	Physics	3	2	4
BIO 109	Human Anatomy and Physiology II	3	2	4
RDT 112	Radiographic Evaluation	2	0	2
RDT 113	Radiographic Procedures II — Skull and Spine	2	1	2
RDT 114	Clinical Technique I	0	18	6
		13	23	21
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
PHY 108	Physics	3	2	4
RDT 115	Radiographic Processing	2	0	2
RDT 116	Radiographic Procedures III — Special Skull and GI Tract	2	1	2
RDT 117	Clinical Technique II	0	24	8
		10	27	19

	COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER				
RDT 118	Radiographic Procedures IV — Angiography	2	1	2
BIO 209	Radiation Biology	3	0	3
PED 185	First Aid and Safety	3	0	3
RDT 119	Clinical Technique III	0	24	8
RDT 120	Imaging Modalities	3	0	3
		11	25	19
FALL QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
RDT 210	Principles of Exposure I	2	0	2
RDT 211	Clinical Technique IV	0	24	8
RDT 212	Radiographic Procedures V — Genitourinary	2	1	2
Elective		3	0	3
		10	25	18
WINTER QUARTER				
BIO 208	Introduction to Study of Disease	3	0	3
PSY 201	General Psychology	3	0	3
RDT 213	Radiographic Equipment and Accessories	2	0	2
RDT 214	Clinical Technique V	0	24	8
RDT 215	Radiographic Procedures VI — Pediatric and Dental	2	1	2
		10	25	18
SPRING QUARTER				
SOC 201	Introduction to Sociology	3	0	3
RDT 216	Principles of Exposure II	2	0	2
RDT 217	Clinical Technique VI	0	24	8
RDT 218	Radiographic Procedures VII — Special View of Whole Skeleton	2	1	2
Elective		3	0	3
		10	25	18
SUMMER QUARTER				
HEA 200	Allied Health Management	3	0	3
RDT 219	Radiation Protection II	2	0	2
RDT 220	Quality Control Seminar	2	0	2
RDT 221	Clinical Technique VII	0	24	8
Elective		3	0	3
		10	24	18
	TOTAL HOURS	98	192	160

NOTE: The radiologic technology program is a 24-month program. A grade of ''C'' must be maintained in all radiology course. The clinical technique courses will be of 12 weeks duration.

RECREATION LEADERSHIP (THERAPEUTIC AND COMMUNITY) (T-083)

CAREER INFORMATION

The graduate of the recreation leadership curriculum may enter a variety of careers in the field of recreation. In most situations the leader will work under the supervision of a professional recreator.

The demand for recreation leaders surely will increase as more and more attention is focused on leisure time. The recreation leader will need the skills and background knowledge to work as an activity director in sports, arts, and crafts or to supervise and conduct programs for various recreation facilities in public, private, commercial, industrial, and institutional settings.

Students enrolled in the recreation curriculum have the option of specializing in a particular area of recreation. The two major areas of concentration are recreational therapy and community recreation. A considerable proportion of the offered courses within the curriculum will transfer to four year institutions with the number of transferred hours dependent on each college.

The therapeutic option is designed to train leaders for health agencies serving the ill and handicapped. Students interested in therapeutic recreation concentrate their field work experiences with health agencies such as institutions for the mentally ill, mentally retarded, correctional centers, physically handicapped, and day care centers.

The community recreation option is designed to train recreation leaders for public, private, and commercial recreation agencies. The community recreation specialty requirements are fulfilled with municipal departments, YMCA's, YWCA's, and private and commercial recreation establishments.

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
PSY 201	General Psychology	3	0	3
PED 180	Personal & Community Health	3	0	3
REC 101	Intro. to Recreation Services	5	0	5
ART 127	Creative Crafts I	1	4	3
Elective	(Physical Education)	0	2	1
		15	8	18
WINTER QUARTER				
ENG 102	English Composition	3	0	3
PSY 215	Intro. to Exceptional Individuals	3	0	3
PED 185	First Aid and Safety	3	0	3
MUS 110	Recreational Music	3	0	3
REC 105	Areas and Facilities	3	0	3
Elective	(Physical Education)	0	2	1
Elective		3	0	3
		18	2	19

	COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER				
ENG 104	Report Writing	3	0	3
EDM 104	Audiovisual Equipment	2	2	3
DRA 110	Recreational Drama	1	4	3
REC 102	Recreation & Special Populations	3	0	3
REC 103	Recreation Programming	3	0	3
REC 106	Camping	3	0	3
Elective	(Physical Education)	0	2	1
		15	8	19
FALL QUARTER				
SOC 201	Introduction to Sociology	3	0	3
SPH 101	Fundamentals of Speech	3	0	3
REC 215	Dance	1	4	3
REC 104* or Elective	Rehabilitation Services	3	0	3
REC 208	Field Work	0	6	2
Elective	(Physical Education)	0	2	1
		10	12	15
WINTER QUARTER				
REC 121	Social Recreation	3	0	3
REC 202	Recreation Leadership	3	0	3
REC 209	Field Work	0	9	3
Elective	(Physical Education)	0	2	1
Elective	(Social Science)	3	0	3
Elective		3	0	3
		12	11	16
SPRING QUARTER				
REC 203	Water Sports	1	4	3
REC 205	Outdoor Education	3	0	3
REC 210	Field Work	0	15	5
REC 211	Recreation Seminar	1	0	1
Elective	(Physical Education)	0	2	1
		5	21	13
	TOTAL HOURS	75	62	100

*Rec. 104 is recommended for persons interested in therapeutic recreation.

SECRETARIAL SCIENCE (T-030) (T-032)

CAREER INFORMATION

The graduates of this program should have a knowledge of the terminology peculiar to the major area, skill in dictation, and accurate transcription of all correspondence, memoranda, and reports. The graduate may be employed as a stenographer or secretary in a variety of offices in businesses such as insurance companies, banks, marketing institutions, financial firms, doctors' offices, medical and health institutions, and government agencies.

EXECUTIVE SECRETARY OPTION (T-030)

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101*	Grammar and Composition	3	2	3
MAT 110*	Business Math	5	0	5
BUS 101*	Introduction to Business	5	0	5
BUS 102*	Typewriting	2	3	3
BUS 106	Shorthand	2	3	3
		17	8	19
WINTER QUARTER				
ENG 102*	English Composition	3	0	3
BUS 103*	Typewriting	2	3	3
BUS 107	Shorthand	2	3	3
BUS 110*	Office Machines	2	2	3
BUS 115*	Business Law	3	0	3
		12	8	15
SPRING QUARTER				
EDP 104	Introduction to Data Systems	3	2	4
BUS 104*	Typewriting	2	3	3
BUS 108	Shorthand	2	3	3
BUS 134*	Personal Development	3	0	3
BUS 214*	Secretarial Procedures	3	2	4
		13	10	17
FALL QUARTER				
SPH 101*	Fundamentals of Speech	3	0	3
BUS 120*	Principles of Accounting	3	2	4
BUS 205*	Word Processing I	2	3	3
BUS 206E	Dictation and Transcription	3	2	4
Elective		3	0	3
		14	7	17
WINTER QUARTER				
ENG 105*	Business Communication	3	0	3
BUS 121	Principles of Accounting	3	2	4
BUS 207E	Dictation and Transcription	3	2	4
BUS 211*	Word Processing II	0	6	2
Elective		3	0	3
		12	10	16
SPRING QUARTER				
BUS 208E	Dictation and Transcription	3	2	4
BUS 247*	Business Insurance	3	0	3
BUS 271	Office Management	3	0	3
Elective		3	0	3
Elective		3	0	3
		15	2	16
	TOTAL HOURS	83	45	100

*A certificate is awarded for satisfactory completion of these courses.

MEDICAL SECRETARY OPTION (T-032)

	COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER				
ENG 101	Grammar and Composition	3	2	3
MAT 110	Business Math	5	0	5
BUS 102	Typewriting	2	3	3
BUS 106	Shorthand	2	3	3
BUS 183M	Terminology and Vocabulary I	3	0	3
		15	8	17
WINTER QUARTER				
ENG 102	English Composition	3	0	3
BUS 103	Typewriting	2	3	3
BUS 107	Shorthand	2	3	3
BUS 110	Office Machines	2	2	3
BUS 284M	Terminology and Vocabulary II	3	0	3
		12	8	15
SPRING QUARTER				
EDP 104	Intro. to Data Systems	3	2	4
BUS 104	Typewriting	2	3	3
BUS 108	Shorthand	2	3	3
BUS 214	Secretarial Procedures	3	2	4
BIO 108	Anatomy and Physiology	3	2	4
		13	12	18
FALL QUARTER				
SPH 101	Fundamentals of Speech	3	0	3
BUS 120	Principles of Accounting	3	2	4
BUS 205	Word Processing I	2	3	3
BUS 206M	Dictation and Transcription	3	2	4
Elective		3	0	3
		14	7	17
WINTER QUARTER				
ENG 105	Business Communication	3	0	3
BUS 121	Principles of Accounting	3	2	4
BUS 207M	Dictation and Transcription	3	2	4
BUS 211	Word Processing II	0	6	2
Elective		3	0	3
		12	10	16
SPRING QUARTER				
BUS 134	Personal Development	3	0	3
BUS 208M	Dictation and Transcription	3	2	4
BUS 247	Business Insurance	3	0	3
BUS 271	Office Management	3	0	3
Elective		3	0	3
		15	2	16
	TOTAL HOURS	81	47	99

COLLEGE TRANSFER ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREE PROGRAMS

The associate in arts and associate in science degree programs are designed for persons who are planning to transfer to a four-year college or university. These programs provide opportunities to complete the first two years of general college courses, with some degree of specialization. Caldwell Community College and Technical Institute offers the following associate in art and associate in science degree programs:

ASSOCIATE IN ART
  PRE-ART
  PRE-BUSINESS ADMINISTRATION
  PRE-BUSINESS EDUCATION
  PRE-FURNITURE
  PRE-LIBERAL ARTS
  PRE-PHYSICAL EDUCATION
  PRE-PUBLIC ADMINISTRATION
  PRE-RECREATIONAL
  PRE-TEACHING (ELEMENTARY AND SECONDARY)
ASSOCIATE IN SCIENCE
  PRE-ENGINEERING
  PRE-SCIENCE

ASSOCIATE IN ARTS

Associate in arts degree candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 94 credit hours with an overall grade point average of 2.0 (''C'') or better.

	Quarter Hours Credit
Communication Arts This requirement is met by completing English 101, 102, 103, Speech 101, and Reading 101* or an approved equivalent.	14
Humanities This requirement is met by completing 9 hours from ''A'' below and 6 hours from ''B'' below. A. Literature, or Language (Advanced Spanish 211, 212, 213) B. Music Appreciation, Art History, American Music, Philosophy, Religion, Humanities, Studies in Fiction	15
Mathematics This requirement is met by completing Math 101 and 102 or Math 111 or higher	6
Natural Science Biology, Physical Science, Physics, Chemistry, Astronomy, Physical Geography	12
Social Science This requirement is met by completing History 101, 102, 103 and 6 hours from any of the following: Economics, Regional Geography, Political Science, Sociology, Anthropology, Psychology, History.	15
Physical Education†	3
Electives	29
TOTAL QUARTER HOURS	94

Electives may be selected from any area or course which is usually transferable but should be based upon the requirements of the four-year institution to which the student plans to transfer.

*In the interest of helping students succeed in their chosen curriculum, Caldwell Community College and Technical Institute maintains a reading/study skills center for the improvement of reading, encompassing instruction in how to study, how to improve reading comprehension, how to increase vocabulary, and how to increase reading rate. Facilities and equipment are provided for diagnosing individual reading difficulties and for achieving peak skills in reading efficiency and comprehension. Services of the center are available through credit courses to any student who desires to improve his reading ability or whose admission testing scores indicate a need for greater reading efficiency.

†All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the department of physical education. Every effort will be made to involve

each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180, Personal and Community Health.

PRE-ART

Pre-art is offered to students with talent and/or interest in the arts. Senior institutions offer majors in painting, sculpture, ceramics, commercial art, interior design, art history, studio art, and art education.

The transfer students will be adequately prepared to move into a specialized art curriculum upon completion of this pre-art program.

Pre-art majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Art 100, Art 102, Art 112, Art 113, Art 114, Art 115, Art 124, Art 201, Art 218, Art 203, Education 201, and Physics 101.

PRE-BUSINESS ADMINISTRATION

The curriculum for the student in business administration includes a broad foundation in liberal arts and professional courses that begins to prepare a person to meet the changing complexities of life and leadership in the business community. Upon receiving the A.A. degree, the student will find a wide range of exciting careers in the business and industrial fields. The graduate's selection of professional studies at the senior institution in business administration, economics, marketing, insurance, management, finance, industrial relations, and many other related fields will lead to meaningful managerial positions in business, government, and nonprofit organizations.

Pre-business majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Business 101, Business 120, Business 121, Business 122, Economics 201, Economics 202, and Economics 203.

PRE-BUSINESS EDUCATION

Business education, sometimes referred to as ''distributive education,'' provides students the opportunity to obtain the first two years of undergraduate studies toward a baccalaureate degree in business education and a class ''A'' teaching certificate in basic and comprehensive teaching or distributive education teaching. In addition, the opportunity exists for students to continue in the same program for a nonteaching degree in office administration.

Pre-business education majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Business 102, Business 103, Business 104, Economics 201, Economics 202, Economics 203, Business 106, Business 107, Business 108, Business 120, Business 121, and Business 122.

PRE-FURNITURE

In North Carolina the furniture industry ranks third in terms of its dollar volume of sales and second in terms of its employment. In order to meet the increasing demand for furniture products, the industry is rapidly changing towards mechanization and more sophisticated management controls.

The transfer students will be adequately prepared to move into a specialized furniture curriculum upon completion of the pre-furniture program and the awarding of the associate in arts degree.

Pre-furniture majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Furniture 102, Furniture 103, Furniture 104, Furniture 108, Furniture 109, and Furniture 201.

PRE-LIBERAL ARTS

The liberal arts curriculum has been designed to prepare the student for entrance with advanced standing to colleges and universities that grant the bachelor's degree; to assist the individual in exploring the major fields of study; and to prepare a person to meet the needs of his total environment through this study of liberal arts courses. Liberal arts courses, in their full context, open the way to help the students understand the condition of man's existence, through the study of ideas and experiences in a variety of subjects and disciplines.

The A.A. degree in liberal arts provides the educational foundation for curriculum degree programs at the senior institution in art, drama, literature, modern languages, music, philosophy, journalism, speech, history, political science, psychology, sociology, anthropology, biology, chemistry, mathematics, and earth science, to mention only the main areas. Candidates for the associate in arts degree in pre-liberal arts meet all requirements for the degree.

PRE-PHYSICAL EDUCATION

The purpose of this program is to provide the student with a sound foundation in liberal arts courses supported by learning experiences in a variety of activity skill courses. Introductory courses in physical education with primary emphasis on knowledge of basic health, fitness, and physiological principles relating to physical activity will be emphasized.

Pre-physical education majors must fulfill all requirements for an associate of arts degree. The following courses are required as part of the required elective hours: Physical Education 201, Physical Education 180, Physical Educatin 185, and six (6) physical education activity courses, including physical fitness. Biology 108 and Biology 109 (anatomy and physiology) and related recreation courses are recommended electives for pre-physical education majors, but students are advised to check transferability to senior institutions.

PRE-PUBLIC ADMINISTRATION

Caldwell Community College and Technical Institute offers a pre-public administration program to both present and future government employees, as well as to other interested citizens.

The program is designed to enable the student to enter public service with skills that make him/her productive immediately. It provides career employees with motivation and advantages to further themselves in the career service of the local government.

The program offers the student an opportunity to transfer to a senior institution and to continue a career in public service administration.

In addition to the general requirements for a student to receive the associate in arts degree, the pre-public administration major will take Business 119, Business 238, Business 240, Business 277, Business 278, Business 279, and Business 246. Sufficient electives should be taken to meet degree requirements.

PRE-RECREATION

The purpose of this program is to provide the students with a sound foundation in liberal arts courses complete with an understanding about man's recreational behavior. The pre-recreation curriculum provides educational preparation for students who will seek careers in a wide variety of business service agencies at the local, regional, state, and national levels. The senior institution offering a degree in recreation allows students to major in concentrations in municipal recreation, industrial recreation, park management, camping, ecology, therapeutic recreation, music or theatre art, and other programs dealing in youth services, corrective institutions, and recreation for the elderly.

Pre-recreation majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Recreation 101, Recreation 106, Recreation 121, Physical Education 180, Education 201, Recreation 205, Art 127, and Physical Education 185.

PRE-TEACHING (K-3; 4-9; 10-12)

The State of North Carolina Department of Public Instruction provides teacher certification in the following three categories: early childhood education (kindergarten through grade three); intermediate education (grade four through nine); and secondary school education (grade ten through grade twelve).

Students seeking certification in early childhood education (K-3) will, upon transfer, begin a specialized curriculum emphasizing appropriate values and techniques that should equip the teacher with the competency and understanding essential to teaching children in the early years. Those wishing to be certified for the intermediate grades (4-9) will, upon transfer, choose an appropriate subject area concentration in language, arts, mathematics, science, or social studies. A second area is recommended and is generally selected from the fields of library science, reading, special education, art, music, or physical education.

Students desiring to enter the K-3 or 4-9 program should follow the basic elementary program, and those who desire certification for grades ten to twelve (10-12) should select the secondary education program.

Pre-teaching majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: History 201, History 202, History 203, Geography 201, Education 201, or Education 202. Physical science is suggested for students interested in kindergarten through ninth grade.

ASSOCIATE IN SCIENCE

Associate in science candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 94 credit hours with an overall grade point average of 2.0 ("C") or better:

	Quarter Hours Credit
Communication Arts	11
This requirement is met by completing English 101, 102, and 103, and Reading 101* or an equivalent.	
Humanities	9
This requirement is met by completing 9 hours in Literature, Music Appreciation, Art History, Religion, Studies in Fiction, Humanities, or Philosophy.	
Mathematics	15
This requirement is met by completing 15 hours from courses numbered 113 or higher. (Courses numbered below 113 may be taken for elective credit.)	
Natural Science	24
This requirement is met by completing 3 quarters of two of the following sciences: Biology, Physical Science, Physics, or Chemistry.	
Social Science	12
This requirement is met by completing 6 hours in History and 6 hours in Economics, Regional Geography, Political Science, Psychology, Sociology, Anthropology, or History.	
Physical Education†	3
Electives	20
TOTAL QUARTER HOURS	94

Electives may be selected from any area of course which is usually transferable but should be based upon the requirements of the four-year institution to which you will transfer.

*In the interest of helping students succeed in their chosen curriculum, Caldwell Community College and Technical Institute maintains a reading/study skills center for the improvement of reading, encompassing instruction in how to study, how to improve reading comprehension, how to increase vocabulary, and how to increase reading rate. Facilities and equipment are provided for diagnosing individual reading difficulties and for achieving peak skills in reading efficiency and comprehension. Services of the center are achieving peak skills in reading efficiency and comprehension. Services of the center are available through credit courses to any student who desires to improve his reading ability or whose admission testing scores indicate a need for greater reading efficiency.

†All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the

department of physical education. Every effort will be made to involve each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180, Personal and Community Health.

ASSOCIATE IN SCIENCE

PRE-ENGINEERING

The Pre-engineering program is designed to prepare students to continue studies toward the baccalaureate degree in engineering at senior institutions. In view of the emphasis on mathematics and sciences, students who decide upon this program should possess high academic potential and should have demonstrated above average mathematical ability.

Students contemplating an engineering career should contact the school of engineering of their choice in order to obtain additional information as to degree requirements. If possible, applicants seeking a degree in engineering at the senior institution should plan to enter summer school to make up required technical courses missed during the first two years.

Careers in engineering offer vast opportunities in the business and industrial world. Degrees generally offered in schools of engineering consist of aerospace, chemical, civil, electrical, engineering mechanics, industrial, mechanical and nuclear, in addition to many other engineering options.

Pre-engineering majors must fulfill all requirements for the associate in science degree. The following courses are suggested electives to be included in the required elective hours: Engineering 101, Engineering 102, and Data Processing 125.

PRE-SCIENCE

The pre-science curriculum is designed for students preparing to transfer to a four-year program requiring a concentration in science and mathematics. The courses are chosen with the student in mind who seeks to obtain a sound education in mathematics and the physical sciences with a wide variety of major fields of interest.

The main objective of this program is to prepare future leaders in the field of science ranging from teaching in higher education to the research specialist. Candidates for the associate in science degree in pre-science must meet all requirements for the degree.

COURSE DESCRIPTIONS

GENERAL COURSE DESCRIPTIONS SPECIAL CODING SYSTEM

F	Course will be offered FALL QUARTER.
W	Course will be offered WINTER QUARTER.
S	Course will be offered SPRING QUARTER.
SS	Course will be offered SUMMER QUARTER.
D	Course will be offered on DEMAND.
N	Designates a NURSING course.
E	Designates an EXECUTIVE SECRETARY course.
M	Designates a MEDICAL SECRETARY course.

Some numbers with 3 digits represent college transfer courses.
Some numbers with 3 digits represent two-year occupational courses.
Numbers with a "T" and 3 digits represent some two-year occupational courses.
Numbers with 4 digits represent one-year occupational courses.
Students should check with senior colleges of their choice for the transferability of courses.
The numbers to the right of the course title represent the following: class, lab, credit. For example:

	Class	Lab	Quarter Hours Credit
ENG 203 English Literature	3	0	3

In order to determine contact hours, add class hours and lab hours. For example:

	Class	Lab	Quarter Hours Credit
ART 120 Ceramics I	2	2	3

Two class hours plus two lab hours equals four contact hours. Where no prerequisite is listed, none is required.

AIR CONDITIONING

AHR 101 Air Conditioning and Refrigeration 3 3 4

A general introduction to the principles of refrigeration, including the study of the assembly of the components and connections necessary in the mechanisms, methods of operation and control, and proper handling of refrigerants in charging the system. The use of testing equipment in diagnosing trouble, conducting efficiency tests, and general maintenance work is also included. (S)

AHR 1101 Automotive Air Conditioning 3 3 4

A general introduction to the principles of refrigeration, including the study of the assembly of the components and connections necessary in the mechanisms, the methods of operation and control, and proper handling of refrigerants in charging the system. The use of testing equipment in diagnosing trouble, conducting efficiency tests, and general maintenance work is also included. (S)

AHR 1101-1 (Part-time) 3 0 3

AHR 1101-2 (Part-time) 0 3 1

ANTHROPOLOGY

ANT 201 Introductory Anthropology 3 0 3

An overview of the field of anthropology. Includes physical evolution of mankind, biological variation within and between human populations, historical development of cultures, and cultural dynamics viewed analytically and comparatively. (D)

ANT 202 Cultural Anthropology 3 0 3

The science of the enculturation of man. Includes ethnography, ethnology, inter-relationships between peoples and their environments, social anthropology, and linguistics. Prerequisite: ANT 201. (D)

ART

ART 100 Equipment and Materials 1 2 2

A study of equipment and materials necessary in the production of art. (D)

ART 102 Art History 3 0 3

An historical survey of painting, sculpture, and architecture from the ancients through the twentieth century. (F/W/S/SS)

ART 103 Art Introduction 3 0 3

An introductory study of fundamental elements and principles of creative artistic expression with an emphasis on composition, design, shape, value, styles, and movements. (D)

ART 112 Beginning Drawing 2 2 3

A study of rudimentary drawing techniques with an emphasis on design and spatial relations in line, texture, value, and volume. (D)

ART 113 Basic Design and Composition 2 2 3

A study of art elements, concepts, media, and principles of organization with a special emphasis on developing competencies in the arts process. (D)

ART 114 Intermediate Design and Composition 2 2 3

A continued study of ART 113 with a special emphasis on expanding skills in the arts process through exploration with the art elements, concepts, media, and principles of organization. (D)

ART 115 Beginning Painting 2 2 3

A study of painting materials, techniques, form relations, and color through acrylics, watercolors, and mixed media with an emphasis on developing multiple means of perceiving perspective, tones, periphery, size relations, expansion, linear, chiaroscuro, and skills to render these perceptions. (D)

ART 120 Ceramics I 2 2 3

A study of clay mixing, glazing, and firing with an emphasis on wheel throwing and handbuilding techniques. (D)

ART 124 Sculpture 2 2 3

A study in principles of sculpture with an emphasis on studio instruction through modeling, casting, constructing, and carving from studies of nature and the human figure. (D)

ART 127 Arts and Crafts I 1 4 3

A study of theories and concepts in structuring two and three dimensional forms with an emphasis on basic application through use of various materials such as flower construction, candle making, decoupage, ceramics, and book printing. (W)

ART 128 Arts and Crafts II 1 4 3

A study in designing three dimensional forms with an emphasis on leather crafts, copper tooling, and macrame. (D)

ART 129 Arts and Crafts III 1 4 3

A study of advanced problems of structuring three dimensional forms with an emphasis on individual expression in leather crafts, macrame, and hand-made pottery. (D)

ART 201 Constructive Design in Plastic 2 2 3

A study of plastic media foundation with an emphasis on creative synthesis of plastic design concepts utilizing aesthetic choice as a foundation of spiritual growth. (D)

ART 202 Constructive Design in Fabric 2 2 3

A study of basics in fiber construction. (D)

ART 203 Constructive Design in Alloys 2 2 3

An introductory study of alloys and related media. (D)

ART 218 Printmaking 2 2 3

An introductory study of basic printmaking processes, including relief printing, with an emphasis on student involvement. (D)

ASTRONOMY

AST 101 Elementary Descriptive Astronomy 2 2 3

A nonmathematical descriptive study of the solar system, (including the sun, moon, planets, meteors, comets) astronomical instruments and their uses, stars and star systems, nebulae, quasars, and galaxies. Laboratory topics include time latitude and longitude, tides, seasons, optics, and observations using the telescope. (S/D)

AUTOMOTIVE

AUM 1101 Automotive Mechanics I 4 12 8

A course to develop a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Includes a study of the construction and operation of components of internal combustion engines. Also covers testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, and cooling systems; proper lubrication; and methods of testing, diagnosing, and repairing. (F)

AUM 1101-1 (Part-time) 2 6 4

AUM 1101-2 (Part-time) 2 6 4

AUM 1102 Automotive Mechanics II 4 12 8

A thorough study of the electrical and fuel systems of the automobile to include battery cranking mechanism, generator, ignition, accessories, wiring, fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system are also included. (W)

AUM 1102-1 (Part-time) 2 6 4

AUM 1102-2 (Part-time) 2 6 4

AUM 1103 Automotive Mechanics III **4 12 8**

A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment and repair, and the servicing of park brakes. Includes principles and functions of the components of automotive chassis and practical job instruction in adjusting and repairing of suspension systems. (S)

AUM 1103-1 (Part-time) **2 6 4**

AUM 1103-2 (Part-time) **2 6 4**

AUM 1104 Automotive Mechanics IV **4 12 8**

A study of the principles and functions of automotive power train systems. Includes clutches, transmission gears, torque coverters, drive shaft assemblies, rear axles, and differentials. Also covers identification of troubles, servicing, and repair. (SS)

AUM 1104-1 (Part-time) **2 6 4**

AUM 1104-2 (Part-time) **2 6 4**

AUM 1105 Auto Servicing **3 9 6**

A course emphasizing the shop procedures necessary in "trouble-shooting" the various component systems of the automobile. Includes a full range of experiences in testing, adjusting, repairing, and replacing components. A close simulation to an actual automotive shop situation will be maintained. Prerequisite: AUM 1102, AUM 1103, AHR 1101 or off-campus instruction in the auto repair environment. A minimum of one quarter previous attendance and the prerequisites AUM 1104 and BUS 1103. (SS)

AUM 1105-1 (Part-time) **1 3 2**

AUM 1105-2 (Part-time) **1 3 2**

AUM 1105-3 (Part-time) **1 3 2**

PME 1121 Braking System (Truck) **2 3 3**

A complete study of various braking systems used on automobiles and light trucks. Emphasis is placed on how they operate and their proper adjustment and repair. (D)

PME 1126 Small Engine Repair **2 3 3**

A course offered to train in the maintenance and overhaul of two- and four-cycle engines. Students learn to repair and replace defective parts of the small engines used to power boats, lawn mowers, garden tractors, chain saws, rototillers, and similar machines. Instruction in safety is one of the major features of the course. (D)

PME 1184 Co-op Work. (Min.) **0 15 5**

A full-time or part-time prearranged on-the-job training course. The student is placed in a garage to gain experience during the summer and by contract, verbal or written agreement, returns to the institution for the fall term. The student enrolls at the school and is supervised by the instructor. Prerequisite: Three or more quarters of instruction. (SS/D)

PME 1202 Auto Electrical/Electronics **4 9 7**

A thorough study of the theory and operation of various automobile electrical units and systems. Covers maintenance and testing procedures, diagnosis, and repair of all types of electrical/electronic components, especially the transistor circuits found on the modern automobile. Prerequisite: AUM 1102.

PME 1202-1 (Part-time) 2 6 4

PME 1202-2 (Part-time) 2 3 3

PME 1203 Automotive Engine Tune-up 4 9 7

A course designed to provide depth in understanding and skill in the use of various types of tune-up equipment. Emphasis is placed on gaining knowledge of the waveforms of the oscilloscope and other units of the Tune-Up Tester. Through proper use of tune-up equipment, the student is expected to demonstrate ability in diagnosing malfunctions in ignition systems, cranking motors, and charging circuits. Prerequisite: AUM 1102, DFT 1102 or equivalent work experience. (D)

PME 1203-1 (Part-time) 2 6 4

PME 1203-2 (Part-time) 2 3 3

PME 1214 Advanced Air Conditioning Repair 3 3 4

An in-depth study of the principles of refrigeration to include extensive practice in disassembly and the assembly of the component parts, diagnosis of malfunctioning, and the proper methods of repair and handling of refrigerants in charging the various systems. Prerequisite: AHR 1101 or work experience. (D)

PME 1221 Front Suspension, Alignment, and Power Steering 1 3 2

A course covering the theory of operation, correct disassembly, and mounting of all front suspension parts on various types of automobile and light truck frames. The course will provide a thorough understanding of the function and repair of steering gears (power and standard), shock absorbers, springs, wheels and tires, pumps, and rams. Includes theory and application of steering geometry, correct diagnosis of problems, use of the alignment and balancing machines, and analysis and correction of tire wearing problems, vibrations, hard steering, and pulling. Prerequisite: AUT 1123. (D)

PME 1224 Advanced Automatic Transmissions 3 12 7

A course designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, function, construction, operation, servicing and "trouble-shooting" procedures, and repair of various types of automatic transmissions. Prerequisite: PME 1124 or work experience. (D)

PME 1224-1 (Part-time) 2 6 4

PME 1224-2 (Part-time) 1 6 3

PME 1225 Auto Engine Trouble Shooting 2 9 5

A course in the general principles of engine "trouble-shooting," including the electrical and fuel systems. In addition, a study is made of the engine design and construction along with the four-stroke cycle and the two-stroke cycle principles of engine operation. The details of the engine lubrication, maintenance, and operation of cooling systems are stressed. Prerequisite: AUM 1101 or work experience. (D)

PME 1225-1 (Part-time) 1 6 3

PME 1225-2 (Part-time) 1 3 2

PME 1226 Automobile Servicing II 2 9 5

A course emphasizing "trouble-shooting" and repairing the various component systems on vehicles provided for general repairs. The student is given in-depth experiences in diagnosis, testing, adjusting, repairing, and replacing components parts. Prerequisite: AUT 1125. (D)

PME 1226-1 (Part-time) 1 6 3

PME 1226-2 (Part-time) 1 3 2

PME 1227 Power Accessories 5 0 5

A course designed to acquaint the student with the operation, service, and repair of power operated seats, windows, tops, windshield wipers, radio antennas, etc. It should insure the development of the student's ability to understand and trace out the circuits of the electrical accessories and to enhance skills in diagnosing troubles and repairing damaged circuits. Includes application of knowledge in drawing and reading schematic diagrams of electrical circuits. Prerequisite: PME 1202 or work experience. (D)

AUB 1101 Auto Body Repair I 4 12 8

A study of the basic principles of automobile construction, design, and manufacturing. Includes a thorough study of angles, crown, and forming of steel into the complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning, and painting of damaged areas.

AUB 1101-1 (Part-time) 2 6 4

AUB 1101-2 (Part-time) 2 6 4

AUB 1102 Auto Body Repair II 4 12 8

A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders and metal working and painting.

AUB 1102-1 (Part-time) 2 6 4

AUB 1102-2 (Part-time) 2 6 4

AUB 1103 Auto Body Repair III 4 12 8

A course to develop skill in shrinking stretched metal; soldering and leading; preparing metals for painting; straightening of doors, hoods, and deck lids; fitting and aligning; painting fenders and panels; spot repairs; and complete vehicle painting. The student learns the use and application of power tools.

AUB 1103-1 (Part-time) 2 6 4

AUB 1103-2 (Part-time) 2 6 4

AUB 1104 Auto Body Repair IV 4 12 8

A general introduction to and instruction in the automotive frame and front end suspension systems, the methods of operation and control, and the safety of the vehicle. Unit job application covers straightening of the frames, front wheel alignment, methods of removing and installing interior trim, and cutting, sewing, installing, and fitting headlinings, seat covers, and door trim panels. All phases of training are applied. The course also covers repair order writing, parts purchasing, estimates of damage, and developing the final settlement with adjuster.

AUB 1104-1 (Part-time) 2 6 4

AUB 1104-2 (Part-time) 2 6 4

AUB 1105 Auto Body Shop Application 3 9 6

An extensions study of topcoats and their applications, with further development in the skills of spot painting with acrylic laquer and acrylic enamel. Includes application of overall finishes such as acrylic lacquer, acrylic enamel, synthetic enamel, and oplyurethane enamel; refinishing problems; and cures. Emphasis is placed on the final job appearance, detailing, neatness, and quality of repairs. Also covers development of skills in repair order writing, estimating, customer relations, and final settlement with insurance companies. Prerequisites: AUB 1101, AUB 1102. (SS)

AUB 1105-1 (Part-time) 1 3 2

AUB 1105-2 (Part-time) 1 3 2

AUB 1105-3 (Part-time) 1 3 2

IMPORTED CAR OPTION

AUT 1145 Transaxle Operation and Repair 3 9 6

A study of the combination transmission and differential (transaxle) used on imported rear engine units with emphasis on diagnosing and repairing malfunctions. (D)

AUT 1146 The Air-Cooled Engine 2 6 4

A course designed to help the student understand the basic differences in the liquid-cooled and the air-cooled engine. The horizontally-opposed and inline engine will be considered. (D)

AUT 1147 Imported Car Carburetion 2 6 4

A course covering the different types of carburetion used on imported cars. Included will be fuel injection and carburetors of the downdraft, sidedraft, and updraft type. (D)

AUT 1150 Imported Car Valve Trains 2 6 4

A study of the valve systems used in imported cars. Includes conventional cam shaft and both single and double overhead cam shaft type train systems. (D)

AUT 1154 The Wankel Engine 3 9 6

A course covering the wankel rotary engine used in some imported cars. Both the single rotor and double rotor are included. Models of the engine are disassembled and reassembled and the component parts studied. (D)

AUT 1158 Front Wheel Drive Systems 2 6 4

A study of the systems used in many imported cars to provide front wheel drive. Includes a study of constant velocity universal joints and specialized differentials. (D)

BIOLOGY

BIO 101 General Biology 3 3 4

An introduction to the biological concepts, including a study of the chemical and physical structure of the living cell. Various animal groups are studied from the point of view of structure, function, and habitat. (F/SS)

BIO 102 General Biology 3 3 4

A continuation of BIO 101, including a study of various plant groups approached from the point of view of structure, function, and habitat. Prerequisite: BIO 101. (W/SS)

BIO 103 General Biology **3 3 4**

A continuation of BIO 102 with emphasis on specific concepts such as genetics and evolution. Prerequisite: BIO 102. (S/SS)

BIO 108 Human Anatomy and Physiology I **3 2 4**

A course providing an opportunity for the student to gain an understanding of the basic facts of human anatomy and physiology which are particularly useful for an allied health professional. Those principles of chemistry and physics which are supportive of these understandings are included along with the relevant pathophysiology. The systems covered will include reproduction, endocrine, circulation, urinary and fluid and electrolytes, and respiratory. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. Prerequisite: BIO 130. (W/SS)

BIO 109 Human Anatomy and Physiology II **3 2 4**

A continuation of BIO 108 providing an opportunity for the student to gain an understanding of the basic facts of human anatomy and physiology. Those principles of chemistry and physics which are supportive of these understandings are included, along with the relevant pathophysiology. The systems covered include nervous, digestive, skeletal, muscular, and skin. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. Prerequisite: BIO 108. (F/SS)

BIO 115 Human Anatomy for Medical Secretaries **3 0 3**

A general survey of human anatomy covering the reproductive, endocrine, circulatory, urinary, respiratory, nervous, digestive, skeletal, muscular, and integumentary systems. The course is designed as a preparatory course for medical terminology courses. (F)

BIO 125 Medical Terminology I **1 0 1**

The first in a series of two courses which includes terms related to all areas of medical science, hospital service, and para-medical specialities. Terms introduced parallel the topics covered in Anatomy and Physiology I. (F)

BIO 126 Medical Terminology II **1 0 1**

The second in a series of two courses in which terms related to all areas of medical science, hospital service, and para-medical specialities are introduced. Prerequisite: BIO 125. (W)

BIO 130 Basic Life Science **4 2 5**

A study of the normal structure and related functioning of the human body which is identified as a living organism composed of living cells, tissues, organs, and systems. The normal body is studied as a basis for understanding variations from the normal and the human's need to maintain homeostasis. Included are the skeletal, muscular, digestive, circulatory, respiratory, urinary, reproductive, endocrine, integumentary and nervous systems, and the special sense organs. Elementary principles and concepts of chemistry, microbiology, and physics are presented with the emphasis on the application of these principles to the relationships between structures and functions of the normal human body. Encompasses bacterial anatomy, physiology, and immunology in laboratory portions with relevant experiments to augment the student learning of body structure and function. (D)

BIO 135 Microbiology **2 2 3**

A study of microscopic units of the human body as well as microorganisms. Emphasis is placed on the etiology of pathogens with special considerations given to pathogenicity, virulence, resistance, control, and immunity. Prerequisite: BIO 130. (F/SS)

BIO 139 Topographical Anatomy **2 0 2**

A study of visualizing the patient's surface anatomy. Major emphasis is placed on learning the topographical location of internal organs, muscles, nerves and nerve plexuses, blood vessels, bony prominences, and techniques of palpation of structures not visually evident. Radiology is stressed throughout the course since the technique defines structures not recognized by visual inspection or palpation. Living anatomy is stressed throughout the course, so that surface landmarks and palpations are constant reminders of deeper structures. Prerequisite: NMT 102. (S)

BIO 201 Botany I **3 2 4**

A study of the morphology, physiology, reproduction, and ecological relationships of nonseed producing plants. Prerequisite: BIO 103. (D)

BIO 202 Botany II **3 2 4**

A study of the morphology, physiology, reproduction, and ecological relationships of seed producing plants. Prerequisite: BIO 201. (D)

BIO 206 Invertebrate Zoology **3 2 4**

A study of the structure, physiology, and taxonomy of the invertebrates. Prerequisite: BIO 103. (D)

BIO 207 Vertebrate Zoology **3 2 4**

A systematic survey of the major groups of vertebrate animals. Prerequisite: BIO 103. (D)

BIO 208 Introduction to Study of Disease **3 0 3**

A study of the general principles involved in the living body. Covers a variety of diseases and malfunctions of the body. Each organ and system of organs will be looked at closely. Points of interest for the diagnostic technologist are covered. Prerequisite: BIO 108, BIO 109. (W)

BIO 209 Radiation Biology **3 0 3**

A course designed to help the student understand the effects of ionizing radiation in the biologic system and to increase awareness of the public right to minimal radiation exposure. (SS)

BIO 225 Advanced Anatomy and Physiology

An introduction to normal structure and function of the human body on a cellular level, including tissues, organs, and organ systems. When relevant, clinical applications are briefly made of such acquired knowledge; e.g., relation of information to basic pathological states. The laboratory experience introduces additional fundamentals gained by personal participation in various types of exercises.

BIOMEDICAL EQUIPMENT TECHNOLOGY

BMT 201 Medical Institutions **3 0 3**

A motivational and career orientation course designed to prepare the student to enter the health care industry with some degree of general sophistication and awareness. Hospital functions and design, a brief description of most medical specialities and para-medical occupations, and the professional and social interrelationship between these groups are covered. (F)

BMT 228 Practicum **0 39 13**

A course providing supervised work experience on a schedule satisfactory to the employer, the institution, and the student. The work periods are carefully planned and closely supervised by the employer and the institution to provide experiences and responsibilities commensurate with the capabilities of the student. Prerequisite: Satisfactory completion of six quarters of the biomedical equipment technology program. (S)

BMT 244 Safety Inspections and Standards **2 4 4**

A review of biomedical instrumentation with emphasis on safety. Particular attention is given to all aspects which involve physical or biological hazards to patients or operating personnel. National, state, and local standards are reviewed and methods of implementing standards are studied. (W)

BMT 254 Biomedical Instrumentation I **2 4 4**

The first in a series of three courses of medical instrumentation. Designed to provide the student with a background on the source of the segual for a given instrument, the basis on which the measurement is made, and the use of the results as related to medical instrumentation. (SS)

BMT 264 Biomedical Instrumentation II **2 4 4**

A continuation of BMT 254. Provides an indepth analysis of the basic medical instrumentation circuits. Experiments are provided for each circuit. Prerequisite: BMT 254. (F)

BMT 271 Biomedical Instrumentation III **2 4 4**

A continuation of BMT 264. Describes the theory and operation of actual medical instruments. Experiments are provided to build, calibrate, and test medical instruments. Prerequisite: BMT 264. (W)

BMT 274 Biomedical Instrumentation: X-Ray and Nuclear Medicine **2 4 4**

A course designed to provide the technician with an understanding of the workings of the component parts of radiation producing, detecting, and measuring equipment and with the ability to maintain, repair, and adjust this equipment. Prerequisite: Approval of instructor. (F)

BMT 280 Biomedical Instrumentation Troubleshooting **2 4 4**

A course presenting basic problems involving tracking down and identifying problems frequently encountered with various types of medical instrumentation. Much time is spent developing logical troubleshooting techniques such as backtracking and the half split rule. Any clinical or monitoring devices may be used for laboratory exercises. Mechanical, as well as electronic problems, are considered. Prerequisite: Approval of instructor. (W)

BUSINESS EDUCATION

BUS 090 Basic Accounting **3 2 4**

A course designed to provide the student with a basic understanding of accounting. Emphasis is placed on the fundamentals of accounting in an effort to give the student a strong foundation for entry into Accounting I. Covers the basic accounting cycle of journalizing, posting, and preparation of the work sheet and financial statements, adjusting and closing entries, and the post-closing trial balance. Completion of this course does not earn credit toward the completion of a diploma or a degree. (D)

BUS 101 Introduction to Business **5 0 5**

A survey of the types of business organizations with emphasis on financing, marketing, business law, and internal control and management. (S)

BUS 102 Typewriting **2 3 3**

An introduction to the touch-typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. (F)

BUS 103 Typewriting **2 3 3**

A continuation of BUS 102 with emphasis on the development of speed and accuracy with further mastery of correct typewriting techniques. These skills are applied in correspondence, tabulation, manuscripts, and business forms. Prerequisite: BUS 102 or approval of instructor. (F/W)

BUS 104 Typewriting **2 3 3**

A continuation of BUS 103 with emphasis on production typing and speed building. Attention is given to the student's ability to function as an expert typist, producing mailable copies. Units of production include correspondence, tabulation, manuscripts, medical reports, legal documents, accounting reports, and programs. Prerequisite: BUS 103 or the equivalent. (W/S)

BUS 106 Shorthand **2 3 3**

A study of the principles of Gregg Shorthand, including a presentation of theory and extensive practice in reading and writing shorthand, with emphasis on phonetics, penmanship, word families, brief forms, and phrases. (F)

BUS 107 Shorthand **2 3 3**

A continuation of the study of shorthand theory with more emphasis on speed, accuracy, fluency, and vocabulary. Includes an introduction to transcription-minimum dictation rate of 60 words a minute with a minimum of 95 percent accuracy on new material. Prerequisite: BUS 106. (F/W)

BUS 108 Shorthand **2 3 3**

A study of theory and speed building with an emphasis on development of speed in dictation and speed accuracy in transcription. Includes an introduction to office style dictation with minimum dictation rate of 70 words a minute with a minimum of 95 percent accuracy on new material. Prerequisite: BUS 107. (W/S)

BUS 110 Office Machines 2 2 3

A general survey of business and office machines. Students receive training in techniques, processes, operation, and application of adding machines and electronic calculators. (W/S)

BUS 111 Collecting and Reporting Information 2 2 3

A course designed to aid the student in the methods of collecting various types of data needed in the furniture industry for better cost estimates and analysis. Emphasis is placed on accurate methods of collecting and presenting data in an effective method. (F)

BUS 112 Personal Finance 3 0 3

A course covering personal and family finance, budgeting, saving, insurance, real estate, stock market, and other investment media. (D)

BUS 115 Business Law 3 0 3

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instrument, and agencies. (W)

BUS 116 Business Law 3 0 3

A course including the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights. Prerequisite: BUS 115. (S)

BUS 119 Introduction to Public Administration 3 0 3

A survey of the practices and political relationships in public administration leadership, decision making, personnel, and budgetary functions within governmental agencies. Includes analysis of the role of the public administrator in contemporary government and an examination of the implementation of public policy at all levels of government with emphasis on local and the municipal institutions. (F)

BUS 120 Principles of Accounting 3 2 4

A study of methods of modern accounting practice, theory of accounting as a management information system, study of the accounting cycle and presentation of financial statements, and methods and practices applicable to formal organizations. (F)

BUS 121 Principles of Accounting 3 2 4

A continuation of the study of accounting principles and practices with emphasis on managerial accounting tools for decision making. Prerequisite: BUS 120. (W)

BUS 122 Principles of Accounting 3 2 4

A critical examination and analysis of accounting principles, determination of cost and income, valuation and statement presentation, and current problems presented in accounting literature and business cases. Prerequisite: BUS 121. (S)

BUS 123 Business Finance 3 0 3

A study of the financing of business units as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term, long-term, and consumer financing. (F)

BUS 124 Business Finance 3 0 3

An examination of financing in federal, state, and local government and the ensuing effects upon the economy, with a look at factors affecting the supply of funds and monetary and credit policies. Prerequisite: BUS 123. (W)

BUS 134 Personal Development 3 0 3

A course designed to help the student recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal development. (S)

BUS 183M Terminology and Vocabulary 3 0 3

A course designed to develop an understanding of the terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices. (W)

BUS 195 Small Business Management 3 0 3

A course designed to emphasize those aspects of management that are uniquely important to small firms and self-employed individuals. Provides practice in decision making on the same types of problems that small businessmen face as they make decisions. Emphasis is placed on organization, financing, recordkeeping, and management. (D)

BUS 205 Word Processing I 2 3 3

A course emphasizing the development of individual production rates. The student learns the techniques needed in planning and typing projects that closely approximate the work appropriate to the field of study. The use of the transcribing machines is taught with specific emphasis on the operation of word processing equipment. Prerequisite: BUS 104. (F)

BUS 206E Dictation and Transcription 3 2 4

A course designed to develop the skill of taking dictation and transcribing at the typewriter materials appropriate to the course of study. Includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. A minimum dictation rate of 80 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Prerequisite: BUS 108. (F)

BUS 206M Dictation and Transcription 3 2 4

A course designed to help the student learn the fundamentals of medical transcription. Medical dictation is accurately transcribed using medical dictionaries, spelling guides, and other standard reference sources. Students become familiar with the various types of medical reports, records, and acceptable initials and abbreviations for medical terminology. Prerequisite: BUS 108. (F)

BUS 207E Dictation and Transcription 3 2 4

A course designed to help develop the accuracy, speed, and vocabulary necessary to meet the stenographic requirements of business and professional offices. A minimum dictation rate of 90 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Opportunities for application of transcription skills are available through limited hours of work experience in the CCC & TI word processing center. Prerequisite: BUS 206E. (W)

BUS 207M Dictation and Transcription 3 2 4

A course emphasizing accurate production of medical transcription through a broad knowledge of medical terms, drugs, and instruments, as well as acceptable initials and abbreviations for medical terminology. The student continues to use medical dictionaries, spelling guides, and other standard reference sources. Prerequisite: BUS 206M. (W)

BUS 208E Dictation and Transcription **3 2 4**

A speed-building course, principally, but also with a focus on accuracy. A minimum dictation rate of 90 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Limited hours of transcription experience are gained in CCC & TI's word processing center. Prerequisite: BUS 207E. (S)

BUS 208M Dictation and Transcription **3 2 4**

A course emphasizing accurate medical transcription through a broad knowledge of medical terms, drugs, and instruments, as well as acceptable initials and abbreviations for medical terminology. The student continues to use medical dictionaries, spelling guides, and other standard reference sources. Prerequisite: BUS 107M. (S)

BUS 211 Word Processing II **0 6 2**

A course providing instruction in the operation of word processing equipment on practical application problems. Prerequisite: BUS 205. (W)

BUS 212 Business Machine Transcription **1 2 2**

A study and practice in the use of transcribing machines in business dictation. Proficiency in word usage, correct grammar, and letter styles are emphasized. Prerequisite: BUS 103. (D)

BUS 214 Secretarial Procedures **3 2 4**

A course designed to acquaint the student with the responsibilities encountered by a secretary during the workday. These include receptionist duties, handling the mail, basic rules of filing, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims. (S)

BUS 215E Office Application **0 18 6**

A course in which students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned according to the course of study. Open only to students in the sixth quarter. Prerequisite: BUS 214, BUS 205, BUS 208, BUS 211. (D)

BUS 215M Office Application **0 18 6**

A course in which students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned according to the course of study. Open only to students in the sixth quarter. Prerequisite: BUS 214, BUS 205, BUS 208, BUS 211. (D)

BUS 217 Business Law **3 0 3**

A study of the powers, policies, methods, and procedures used by the various federal, state, and local administrative agencies in promoting and regulating business enterprises. Includes a consideration of the constitutional and statutory limitations on these bodies and judicial review of administrative action. Prerequisite: BUS 116. (D)

BUS 219 Credit Procedures **3 0 3**

A study of the principles and practices in the extension of credit. Includes collection procedures and law pertaining to credit extension and collection. (W)

BUS 220 Intermediate Accounting 3 2 4

A thorough treatment of the field of general accounting providing the necessary foundation for specialized studies and emphasis on financial statements, the accounting process, and current assets. Prerequisite: BUS 122. (F)

BUS 221 Intermediate Accounting 3 2 4

A theoretical review of accounting principles with emphasis on noncurrent assets, liabilities, and paid-in capital. The present value concept of evaluating investment proposals is introduced. Prerequisite: BUS 220. (W)

BUS 222 Intermediate Accounting 3 2 4

A continued study of accounting principles with emphasis on retained earnings, financial statement analysis, correcting errors, and reporting price level change. Prerequisite: BUS 221. (S)

BUS 225 Cost Accounting 3 2 4

A detailed study of systems of cost accounting including process, job orders, and standards costs. Usefulness of data to management is stressed. Prerequisite: BUS 121. (F)

BUS 229 Taxes I 3 2 4

A study of the application of federal and state taxes to various businesses and business conditions including income, payroll, intangible, capital gain, and sales taxes and their uses. Prerequisite: BUS 121. (W)

BUS 230 Taxes II 3 2 4

A study of the application of federal and state taxes to individuals, business partnerships, and corporations. Includes franchise, excise, gift, income, and inheritance taxes. Prerequisite: BUS 229. (S)

BUS 232 Sales Development 3 0 3

A study of retail, wholesale, and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations is required. (S)

BUS 233 Personnel Management 3 0 3

A study of the principles of organization and management of personnel: procurement, placement, training, performance checking, supervision, renumeration, labor relations, fringe benefits, and security. (F)

BUS 235 Business Management 3 0 3

A study of the principles of business management including an overview of major functions of management such as planning, staffing, controlling, directing, and financing. Covers clarification of the decision making function versus the operating function. Includes role of management in business qualifications and requirements. Prerequisite: BUS 101, BUS 121. (S)

BUS 237 Wholesaling 3 0 3

A study of the developments of wholesaling. Includes present day trends in the United States and functions of wholesaling. (D)

BUS 238 Problems of Public Administration 3 0 3

An analysis of contemporary problems related to the administration of public organization. Includes problems of authority, communication, control, leadership, and responsibility. Case studies are reviewed and resource people in the profession are consulted for their knowledge and personal experience in the field. (S)

BUS 239 Marketing **5 0 5**

A general survey of the field of marketing with a detailed study of the functions, policies, and institutions involved in the marketing process. (F)

BUS 240 Public Finance **3 0 3**

A study of the fundamental principles of public finance, the economics of government expenditure and the revenue policy, the shifting and the incidence of taxation, expenditure decisions and the cost-benefit analysis for the budgeting system, and the relations of government finance to its economy. Special emphasis is directed to expenditures for the taxation for the State of North Carolina and its local government. (F)

BUS 243 Advertising **3 2 4**

An examination of the role of advertising in a free economy and its place in the media of mass communications. Includes a study of advertising appeals, product and market research, selection of media, and means of testing effectiveness of advertising. Covers theory and practice in writing advertising copy for various media. (F)

BUS 245 Retailing **3 0 3**

A study of the role of retailing in the economy including development of present retail structure, functions performed, principles governing effective operation, and managerial problems resulting from current economic and social trends. (D)

BUS 246 Municipal Public Relations **3 0 3**

A course covering the complex areas of public opinions, public attitudes, and public information. Designed to teach all personnel to act efficiently in these areas and to make good public relations integral to the duty's administrative practice. (D)

BUS 247 Insurance **3 0 3**

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included. (S)

BUS 266 Budget and Record Keeping **3 0 3**

The basic principles, methods, and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the roles they play. Emphasis is on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning. Prerequisite: BUS 121. (D)

BUS 269 Auditing **3 2 4**

An examination of properly applicable internal control features, audit principles, and standards and procedures through which the student will identify the objectives and functions of auditing including aspects of financial statements such as proper and adequate disclosure in accordance with modern concepts of financial reporting. Emphasis is placed on the conceptual skills needed in auditing. Prerequisite: BUS 122. (S)

BUS 271 Office Management **3 0 3**

A study presenting the fundamental principles of office management with emphasis on the role of office management including its functions, office automation, planning, controlling, organizing, and actuating office problems. (S)

BUS 272 Principles of Supervision 3 0 3

An introduction to the basic responsibilities and duties of the supervisor and his/her relationship to superiors, subordinates, and associates. Emphasis is on securing an effective work force and the role of the supervisor. Methods of supervision are stressed. (S)

BUS 275 Programming 3 0 3

A course designed to provide the student with the basic concepts of programming for easy mastery of any specific system with the minimum of additional instruction. The logic required in computerized problem solutions is also stressed. Flowcharts and the COBOL language are combined to help the student meet the logic and programming objectives. Prerequisite: EDP 104. (F)

BUS 276 Money and Banking 3 0 3

An application of money and banking theory and procedures including the functions of money, various phases of customer relations with banks, bank administrative policies, the Federal Reserve System, specialized financial institutions, and international monetary principles. Prerequisite: ECO 202. (S)

BUS 277 Application in Public Administration I 2 6 4

A course providing observation and participation in the area of the student's special interest. Students are placed in local government departments to engage in specific research projects at a policy or administrative level. Examples of these projects are position classification survey, personnel policy, job specifications, performance appraisal study, employee attitude survey, employee handbook, pay plan, personnel audits, utilization of records, and suggestion of award systems. (F)

BUS 278 Application in Public Administration II 2 6 4

A course providing observation and participation in the area of the student's special interest. Students are placed in local government departments to engage in specific research projects at a policy or administrative level. Examples of these projects are fiscal administration — local government budget and finance administration; economic approaches to urban problems — zoning, urban renewal, public housing, welfare problems, revenue sharing, and crime; and public finance — tax policies and taxation, budget determinations, and the budget process. (W)

BUS 279 Internship in Public Administration 1 18 7

A course providing for participation in the activities of an administrative agency under the joint supervision of a faculty member and the agency. (S)

BUS 282 Governmental Accounting 3 0 3

An application of accounting principles to government and problems related to governmental appropriations and allotments, encumbrances, and fund accounting. Prerequisite: BUS 122. (W)

BUS 284 M&E Terminology and Vocabulary 3 0 3

A course placing greater emphasis on an understanding of the terminology and vocabulary appropriate to the course of study and as it is used in a professional office. Prerequisite: BUS 183M. (S)

BUS 285 Cost Records and Estimates **2 0 2**

A study of cost estimation, equipment, materials and labor takeoff, and overhead cost. The advantages and limitations of prorating items of cost are considered. Prerequisite: MAT 110 or approval of instructor. (SS)

BUS 1101 Cost Records and Cost Estimates **2 0 2**

A survey of estimates of cost (materials, labor, overhead, etc.). Materials cost deals with price and grade, costs of delivery and storage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover, and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. (D)

BUS 1103 Small Business Operations **3 0 3**

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. (SS)

BUS 1105 Industrial Organizations **3 0 3**

A study of the methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Includes an introduction to the competitive system and the factors constituting product cost. (SS)

BUS 1134 Personal Development **3 0 3**

A course designed to teach the student the importance of good personality and to develop the type of personality that will assist in job success. Emphasis is placed on the principles of grooming in dress, make-up, hygiene, and health. (D)

CARPENTRY

CAR 1101 Carpentry **3 15 8**

A brief history of carpentry and present trends of the construction industry. The course involves operation, care, and safe use of carpenters' hand tools and power tools in cutting, shaping, and joining construction materials. Major topics of study include theoretical and practical applications involving materials and methods of construction, building layout, preparation of site, footings and foundation, and wall construction, including form construction and erection. (D)

CAR 1102 Carpentry: Millwork and Cabinetmaking **3 15 8**

A course in cabinetmaking and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment is emphasized in learning methods of construction of millwork and cabinetry. Practical applications include measuring, layout, and construction of base and wall cabinets, built-in desk, door and window frames, stairs, and interior and exterior cornice and trim. Materials and finishes are also studied. Prerequisite: CAR 1101, DFT 1110. (D)

CAR 1103 Carpentry: Framing **3 15 8**

A study of the principles and practices of frame construction beginning with the foundation sills and including floor joist, subfloor, wall studs, ceiling joist, rafters, bridging, bracing, sheathing, and interior wall partition. Roof construction includes the layout and construction methods of common types of roofs using standard rafter construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to the coordination of carpentry work with installation of the mechanical equipment such as electrical, air conditioning, heating, and plumbing. Prerequisite: CAR 1101, DFT 1111. (D)

CAR 1104 Carpentry: Finishing **3 18 9**

A study of exterior and interior trim and finish carpentry, completing the general carpentry program. Includes materials and methods used in finishing carpentry such as exterior cornice, door, and window trim; interior flooring; door and window facing; moldings; cornice construction; installation of hardware; and installation of built-in equipment and cabinets. Prerequisite: CAR 1103, DFT 1111. (D)

CAR 1113 Carpentry: Estimating **3 3 4**

A practical course in quantity "take off" from prints of jobs performed by the carpenter, including figuring the quantities of materials needed and costs of building various components and structures. Prerequisite: DFT 1111, MAT 1112. (D)

CAR 1114 Building Codes **3 0 3**

A study of building codes and the minimum requirements for local, county, and state construction regulations. Involves safety, sanitation, mechanical equipment, and materials. Also includes a review of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code. Prerequisite: CAR 1103, CAR 1104. (D)

CHEMISTRY

CHM 101 General Chemistry I **3 3 4**

A basic course designed to provide a foundation of essential facts and underlying principles in chemistry. Fundamental concepts, chemical symbols, fundamental particles, atomic structure, use of periodic chart, and scientific measurements are covered. (F)

CHM 102 General Chemistry II **3 3 4**

A continuation of CHM 101 to include a study of chemical bonding, chemical kinetics, kinetic theory of gases, solutions, chemical thermodynamics, and electrochemistry. Prerequisite: CHM 101. (W)

CHM 103 General Chemistry III **3 3 4**

A continuation of CHM 102 with a study of acid-base reactions, oxidation-reducing reactions in water and the environment, air pollution, introduction to organic and biochemistry, and nuclear chemistry. Prerequisite: CHM 102. (S)

CHM 202 Organic Chemistry **3 2 4**

A study of nomenclature, variety, usefulness, and most significant properties of selected organic compounds. (S)

CHM 225 Biochemistry **3 0 3**

A brief introductory course covering an elementary study of the physical and chemical nature of the cell and biochemical properties and functions of cellular components. Also covers metabolism and the biological importance of carbohydrates, fats, proteins, enzymes, nucleic acids, and hormones. This course should be of interest to allied health and para-medical students. Prerequisite: CHM 103. (D)

COSMETOLOGY

COS 1001 Scientific Study I 4 6 6

A course for beginners in cosmetology. Includes a study of professional ethics, grooming and personality development, sterilization, sanitation, first aid and bacteriology, cosmetology law, anatomy, chemistry, nail disorders, manicuring, hair, scalp, skin, and disorders pertaining to the hair, scalp, and skin. (F)

COS 1002 Scientific Study II 5 0 5

A classroom study of skin, scalp, hair, nails, and their disorders. Includes salesmanship, permanent waving, marcelling, relaxing, hairdressing, wigs, and hair coloring. Prerequisite: COS 1001. (F)

COS 1003 Scientific Study III 5 0 5

A classroom study of anatomy, manicuring, chemistry, cosmetics-facials, hair styling, theory of massage, scalp treatments, superfluous hair removal, grooming, and hygiene. Prerequisite: COS 1002. (F)

COS 1004 Scientific Study IV 5 0 5

A classroom study of chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, beauty salon salesmanship management, electricity, cold waving, and hair shaping. Prerequisite: COS 1003. (W)

COS 1005 Public Relations for Cosmetologists 3 0 3

A course focusing on public relations as it pertains to the cosmetology profession. Students must have accumulated 1200 hours previously in a cosmetology school as a prerequisite for the course. Prerequisite: COS 1004, COS 1044. (D)

COS 1006 Beauty Salon Business Operations 3 0 3

A course designed for advanced students of cosmetology who have completed 1200 contact hours in a school of cosmetic art. The student will learn the basic problems of business operations, the types of business organizations, record keeping for a small business, financial aspects of a business, and proper physical facilities of a beauty salon. Prerequisite: COS 1004, COS 1044. (D)

COS 1011 Mannequin Practice 1 18 7

A study of finger waving, pin curling, rollers, marcelling, hair relaxing, shampooing and rinses, scalp treatment, hair cutting, permanent waving, hairdressing and combing, hair tinting, bleaching, frosting, streaking, wig care, and styling. Prerequisite: COS 1004. (W)

COS 1022 Clinical Application I 0 24 8

A study of live model performance. This course is designed to develop skills and understanding of techniques and applications in the areas of bacteriology, pin curling, finger waving, rollers, permanent waving, marcelling, chemical relaxing, hair coloring, and hair cutting. Prerequisite: COS 1011. (S)

COS 1022-1 (Part-time) 0 6 2

COS 1022-2 (Part-time) 0 18 6

COS 1033 Clinical Application II 0 24 8

A course providing continued laboratory practice and application of techniques in hair shaping, professional ethics, manicuring, chemistry, cosmetics-facials, hair styling, hair coloring (rinses, etc.), and scalp treatments. Prerequisite: COS 1022. (SS)

COS 1033-1 (Part-time) 0 15 5

COS 1033-2 (Part-time) 0 9 3

COS 1044 Clinical Application III 0 24 8

A continued study of laboratory practices in chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, cold waving, and hair shaping. Prerequisite: COS 1033. (D)

COS 1044-1 (Part-time) 0 3 1

COS 1044-2 (Part-time) 0 21 7

COS 1055 Chemistry Relating to Cosmetology 3 0 3

An in-depth study of the advanced principles of chemistry as related to cosmetology. Includes definitions, descriptions, and identification through classroom study, examinations, and demonstrations on live models. Prerequisite: Successful completion of 1200 school hours and completion of COS 1004 and COS 1044. (D)

COS 1066 Hairstyling II 1 18 7

An in-depth study of the advanced principles of hairstyling. Includes hair fashion, advanced hair cutting, hair coloring, permanent waving techniques, and analysis. Emphasis is placed on design to include structure, balance, harmony, rhythm, and emphasis. Also consists of constructive and remedial techniques for damaged hair. Students must demonstrate principles and techniques on live models. Prerequisite: Successful completion of 1200 school hours and completion of COS 1004 and COS 1044. (D)

DRAFTING

DFT 101 Technical Drafting 2 9 5

An introductory study of the graphic language, principles of mechanical drawing, and orthographic projection. Skills and techniques are included in the areas of freehand lettering, geometrical constructions, sketching and shape description, multiview project, and sectional views. (F)

DFT 101F Furniture Drafting 2 6 4

An introduction to the field of drafting through the study of the graphic language. The student learns how to freehand letter, construct geometric figures, do freehand sketching, visualize shapes of objects, make multiview drawings, and construct sectional views. (F/W/S)

DFT 102 Technical Drafting 2 9 5

The application of sectional views to more complex problems, primary and secondary auxiliary views, simple and successive revolutions, and the importance of shop processes, dimensioning, and tolerancing. Includes introduction to drawing of threads, fasteners, and springs and the execution of design and working drawings. Prerequisite: DFT 101. (W)

DFT 102-1 (Part-time) 1 6 3

DFT 102-2 (Part-time) 1 3 2

DFT 102F Furniture Drafting 2 6 4

A continuation in the study of drafting and how it relates to the furniture industry. Construction details are drawn. Includes drawing joints used in furniture construction. The student makes a variety of drawings of various pieces of furniture. (F/W/S)

DFT 103 Technical Drafting 2 9 5

A study of the practices of axonometric projection, oblique projection, and perspective projection. Intersections and developments are studied, along with the drawing of gears, cams, and electronic diagrams and reproduction and control of drawings. Prerequisite: DFT 102. (S)

DFT 103-1 (Part-time) 1 6 3

DFT 103-2 (Part-time) 1 3 2

DFT 103F Furniture Drafting 2 6 4

A course designed to aid the studnt in freehand sketching for the purpose of communicating in the shop. Simple shapes are studied and drawn. The student progresses from the simple to the more complex drawings. Shading is also studied. (F/W/S)

DFT 104 Blueprint Reading: Mechanical 0 3 1

A study of the interpretation and reading of blueprints with information on the basic principles of the blueprint, including lines, dimensioning procedures, and notes. (D)

DFT 105 Blueprint Reading and Sketching 0 3 1

A continued practice in interpretation of blueprints as they are used in industry. Includes a study of prints supplied by industry, making plans of operations, introduction to drafting room procedures, and sketching as a means of passing on ideas, information, and processes. Prerequisite: DFT 104. (D)

DFT 110 Mechanics Drafting Interpretation I 1 3 2

A study in the interpretation and reading of blueprints. Includes development of the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Provides information on the basic principles of lines, views, dimensioning procedures, and notes. Also includes a study of components that make up the front suspension, differential assembly, and brake assemblies. (F)

DFT 111 Mechanics Drafting Interpretation II 1 3 2

A study in interpretation and reading of schematic prints and diagrams. Includes making sketches of electrical wiring and fuel system components for automotive engines and other internal combustion engines. Also covers learning to identify the various components of the systems by sketching and labeling parts. Provides practice in tracing wiring systems and diagnosing trouble by using schematics and diagrams found in the automotive service manuals. Prerequisite: DFT 110. (W)

DFT 112 Auto Body Drafting Interpretation 1 3 2

A study in the interpretation and reading of blueprints. Includes the development of the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Provides information on the basic principles of lines, views, and dimensioning procedures as applied to the auto body. (S)

DFT 113 Blueprint Reading: Mechanical **0 3 1**

A study of the interpretation and reading of blueprints. Includes information on the basic principles of the blueprint lines, dimensioning procedures, and notes. (F)

DFT 114 Blueprint Reading: Mechanical **0 3 1**

A further practice in interpretation of blueprints as they are used in industry. Includes a study of prints supplied by industry, making plans of operations, introduction to drafting room procedures, and sketches as a means of passing on ideas, information, and processes. Prerequisite: DFT 113. (W)

DFT 115 Blueprint Reading: Mechanical **0 3 1**

An advanced course in blueprint reading and sketching as related to detail and assembly drawings used in machine shops. Includes the interpretation of drawings of complex parts and mechanisms for features of fabrications, construction, and assembly. Prerequisite: DFT 114. (S)

DFT 116 Blueprint Reading: Building Trade **0 3 1**

A study of the principles of interpreting blueprints and specifications common to the building trades. Includes development of proficiency in making three-view and pictorial sketches. (D)

DFT 117 Blueprint Reading and Sketching **0 3 1**

A continued study of the principles of interpreting blueprints and specifications common to the building trades. Provides practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches, and cavity wall construction. Aims for development of proficiency in making three-view and pictorial sketches. Prerequisite: DFT 116. (D)

DFT 118 Blueprint Reading and Sketching **0 3 1**

A course designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings are studied with emphasis on the plot plan, basement and/or foundation plan, walls, and various detailed drawings of masonry work. Prerequisite: DFT 107. (D)

DFT 119 Blueprint Reading: Electrical **0 3 1**

A study in interpretation of schematics, diagrams, and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams, and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes are part of this course. Prerequisite: DFT 106. (F)

DFT 120 Blueprint Reading: Welding **0 3 1**

A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use, and application of welding symbols, abbreviations, and specifications are included. Prerequisite: DFT 113. (W)

DFT 121 Pattern Development and Sketching **0 3 1**

A continued study of welding symbols, methods used in layout of sheet steel, and sketching of projects, jigs, and holding devices involved in welding. Special emphasis is placed on developing pipe and angle layouts by the use of patterns and templates. Prerequisite: DFT 113. (S)

DFT 201 Technical Drafting **3 9 6**

An introduction to structural drawings, topographical drawings and mapping, pipe drawings, welding representation, graphs, alignment charts, empirical equations, and graphical mathematics. Prerequisite: DFT 103. (F)

DFT 201-1 (Part-time) **2 6 4**

DFT 201-2 (Part-time) **1 3 2**

DFT 204 Descriptive Geometry **2 4 4**

A graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems are stressed with analytical verification where applicable. Visualization is stressed on every problem. Prerequisite: DFT 102, T-MAT 102. (F)

DFT 205 Design Drafting I **2 8 5**

An introduction to basic design in the study of motion transfer mechanisms as they relate to power trains. Principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings, and simplified drafting practices constitute areas of study. Various methods of specifying materials and workmanship are an integral part of the course. Prerequisite: DFT 204, T-MAT 102, PHY 102. (W)

DFT 206 Design Drafting II **2 8 5**

A research course in solving a problem in design by consulting various manuals and periodicals and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawings, assembly and sub-assembly drawings, pictorial drawings, exploded assembly, patent drawings, and specifications are required as a part of the problem. Prerequisite: DFT 205, MEC 210. (S)

DFT 211 Mechanisms **3 2 4**

An examination of mathematical and drafting room solutions of problems involving the principles of machine elements. Includes a study of motions of linkages, velocities, and acceleration of points within a link mechanism and layout methods for designing cam, belts, pulleys, gears, and gear trains. Prerequisite: DFT 201, DFT 204, T-MAT 103, PHY 106. (W)

DFT 212 Jig and Fixture Design **2 6 4**

A study of commercial standards, principles, practices, and tools of jig and fixture design. Individual projects and design work are assigned to acquaint the student with the types of jigs and fixtures and their design. Prerequisite: DFT 205, DFT 211. (D)

DFT 1207 Machine Drafting **1 5 3**

An introductory course in the use of instruments, lettering, orthographic drawings, and sections and views necessary to provide proper views. Emphasis is given to dimensioning. Cam layouts, motion diagrams, and timing are surveyed. Prerequisite: DFT 115 or approval of instructor. (D)

DFT 1216 Blueprint Reading **0 3 1**

A course based on industrial blueprints and standards and covering the difference between operation sheets and detailed tool drawings. Includes assembly drawings. Sketching from finished drawings to provide a better visual picture of parts is stressed. Prerequisite: DFT

1207 or approval of instructor. (D)

DRAMA

DRA 110 Recreational Drama 1 4 3

An activity course exploring the use of drama in a recreational setting with emphasis placed upon the type of dramatic activities which can be used effectively with children, adults, and special groups. (F)

DRA 201 Introduction to Drama 2 2 3

A survey of the basic technologies of staging plays designed to acquaint students with the techniques, arts, and sciences involved in bringing a play to an audience and to make them aware of the variety of talents, skills, and abilities necessary to produce a play. (D)

ECONOMICS

ECO 108 Consumer Economics 3 0 3

A course designed to help the student use resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing finances, increasing resources, and in better understanding the economy in which he/she believes. (W)

ECO 201 Principles of Economics I 3 0 3

A survey of basic economics. Includes the beginning of economic life, archetype preindustrial economics, the beginning of economics as a science, economic revelation, classical economics, and modern economics theory. (D)

ECO 202 Principles of Economics II 3 0 3

A study of economic activity, monetary policy, fiscal policy, the public budget, taxation, price theory, and competition. Prerequisite: ECO 201. (W)

ECO 203 Principles of Economics III 3 0 3

The role of nonprice competition, international trade and payment, economic development, and comparative systems. Prerequisite: ECO 202. (S)

ECO 204 Industrial Relations 3 0 3

A course emphasizing the history of the labor movement in the United States, the development of methods and strategies by labor organizations and by management, the shift in the means of public control, and the factors of income and economic security. Prerequisite: ECO 201. (S)

EDUCATION

EDU 111 Seminar and Practicum 2 6 4

A supervised learning experience in which students are placed in an approved location for six hours per week under a professional childhood specialist, putting into practice the various skills learned. In addition, two hours a week are spent in group discussion of work-oriented problems and personal development.

EDU 201 Introduction to Education 3 0 3

A study of education as an institution in society. Emphasis is on the educational system in the United States, its functions, organization, and history. (S)

EDU 202 Pre-School Education 3 0 3

A study of the recent trends in early childhood education, current preschool education models, and educational philosophy of early childhood education. Emphasis is placed on experiences, facilities, media, and planning and implementing appropriate programs for various levels of children's development. (F)

EDU 203 Health and Nutrition 3 0 3

A study of basic nutrition with emphasis on methods of helping young children and their families learn nutritional concepts for more healthful living. (F)

EDU 230 Seminar and Practicum 2 6 4

A supervised learning experience in which students are placed in an approved location for six hours per week under a professional childhood specialist, putting into practice the various skills learned. In addition, two hours a week are spent in group discussion of work oriented problems and personal development. Prerequisite: EDU 111.

EDU 231 Seminar and Practicum 2 6 4

A supervised learning experience in which students are placed in an approved location for six hours per week under a professional childhood specialist, putting into practice the various skills learned. In addition, two hours a week are spent in group discussion of work oriented problems and personal development. Prerequisite: EDU 230.

EDU 232 Seminar and Practicum 2 6 4

A supervised learning experience in which students are placed in an approved location for six hours per week under a professional childhood specialist, putting into practice the various skills learned. In addition, two hours a week are spent in group discussion of work oriented problems and personal development. Prerequisite: EDU 231.

ELECTRONIC DATA SYSTEMS

EDP 101 Computers and Programming I (RPG Card) 4 4 6

An introduction to computers and computer programming. The course includes history of computers, data representation, numbering systems, flow charting, and an introduction to the RPG programming language. (F)

EDP 102 Computers and Programming II (RPG Disk-Tape) 4 4 6

A continuation of EDP 101 in which students learn advanced features of RPG and file organization on disk and tape. Prerequisite: EDP 101. (W)

EDP 103 Computers and Programming III (COBOL Card) 4 4 6

A study of the fundamentals of the COBOL language in a card-oriented environment. Prerequisite: EDP 102. (S)

EDP 104 Introduction to Data Systems 3 2 4

An introduction to the fundamental concepts and operational principles of data systems. The material and presentation are designed to familiarize non-data systems students with computer systems and their uses. (S)

EDP 108 Assembler Language 2 4 4

The study of symbolic computer languages with emphasis on a particular example of such a language. The student develops program logic and writes programs using assembler language to solve appropriate assigned problems. (D)

EDP 125 Computer Programming 2 2 3

A course designed to help students learn to write and execute computer programs in the FORTRAN language. Computerized solutions of problems in the mathematical, scientific, and engineering areas are emphasized. (F)

EDP 204 Computers and Programming IV (COBOL Disk-Tape) 4 4 6

A continuation of EDP 103 in which the student applies advanced procedures of file organization on disk and tape, utilizing structured COBOL and the report writer feature. Prerequisite: EDP 103. (F)

EDP 208 Systems Orientation 4 4 6

A survey of the techniques utilized in the development of information systems with special emphasis on the role of computers. Prerequisite: EDP 204. (S)

EDP 214 Practicum I 0 15 5

A course providing practical experience in a data systems installation. The time and location vary. Prerequisite: EDP 204 and approval of instructor. (W)

EDP 215 Practicum II 0 15 5

An opportunity for the student to spend time in a data systems installation. Time and place vary. In lieu of this course, the instructor and student might agree to an independent study. Prerequisite: EDP 214 and approval of instructor. (S)

EDP 217 Data Processing Project 1 8 5

A quarter devoted to the solution of a practical case study with minimum supervision. Prerequisite: approval of instructor. (W/SS)

EDP 220 Applied Business Systems 3 0 3

A continuation of management systems applied to information data flow. Practical work in systems flow charting and analysis is implemented. The conduction of feasibility studies; the preparation and maintenance of standard practice, policies, and organization manuals; and computer applications are stressed. Prerequisite: approval of instructor. (D)

EDP 221 Programming Language Survey 2 2 3

An overview of developments in computer systems and software. The student is encouraged to develop expertise in an interactive language such as APL, BASIC, or CPS. Prerequisite: EDP 208. (S)

EDP 222 User/Vender Programs 2 2 3

A study of the documentation, application, and use of various user/vender supplied programs. Prerequisite: approval of department. (D)

ELECTRICAL

ELC 100 Electronic Fundamentals **3 0 3**

A study of the use of AC/DC currents and circuits as they are employed in audiovisual equipment. The course will be an overview of electronics.

ELC 101 Basic Electricity **2 3 3**

A course in the basic understanding and application of electricity to modern industrial machinery. Includes a study of direct current motors, motor controls and protecting devices, transformer, and the industrial applications of this equipment. (D)

ELC 112 Alternating and Direct Current **2 6 4**

A study of the electrical structure of matter and electron theory and the relationship between voltage, current, and resistance. Includes analysis of direct current circuits by Ohm's Law and Kirchhoff's Law. Covers fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Also includes analysis of alternating current circuits. (F)

ELC 113 Alternating and Direct Current Machine Controls **2 6 4**

A course providing the basic concepts of AC and DC machines and simple control circuits. Includes basic meter and test equipment reading and care. Prerequisite: ELC 112. (W)

ELC 115 National Electrical Code **3 0 3**

A course providing instruction and application in the use of the current National Electrical Code and how it aids those concerned with electrical safety in understanding the scope and intent of the National Electric Code.

ELC 119 Industrial Electronic Control **2 6 4**

A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, basic solid state devices, and controls as related to industries. Prerequisite: ELC 112, ELC 113. (S)

ELC 121 Electrical Trouble-Shooting **2 3 3**

A training course in making electrical adjustments and related maintenance operation. Includes use of test equipment and circuit logic for fast and efficient location and repair of electrical circuits. Prerequisite: ELC 112, ELC 113, ELC 119. (D)

ELC 1112 Direct and Alternating Current **4 12 8**

A study of the electrical structure of matter and electron theory and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Also includes an analysis of direct current circuits by Ohm's Law and Kirchhoff's Law, a study of the sources of direct current voltage potentials and fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Covers analysis of alternating current circuits. (F)

ELC 1112-1 (Part-time) **2 6 4**

ELC 1112-2 (Part-time) **2 6 4**

ELC 1113 Alternating Current and Direct Current and Machines and Controls **4 12 8**

A study providing fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Includes instruction in the use of electrical test instruments in circuit analysis, the basic concepts of AC and DC machines and simple system controls, and an introduction to the type control used in small appliances such as thermostats and times or sequencing switches. Prerequisite: ELC 1112, MAT 1115. (W)

ELC 1113-1 (Part-time) 2 6 4

ELC 1113-2 (Part-time) 2 6 4

ELC 1121 Electrical Machines and Controls 2 2 3

An introduction to the construction operation and utilization of direct current and alternating current machines. Covers familiarization with the various types of machine control devices. Prerequisite: ELC 1112. (W)

ELC 1122 Electrical Maintenance 3 6 5

A study of those parts of the electrical code which affect the work of the industrial maintenance electrician. Practical experience is provided in wiring, installing, and connecting the various types of services for lighting, heating, and power installations. Training is provided in trouble shooting in the identification and testing of circuits, in making mechanical adjustments, and related maintenance operations. Schematic diagrams are used showing the plan of operation for each system. Prerequisite: ELC 1113, ELC 1121. (S)

ELC 1124 Residential Wiring 5 9 8

A course providing instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboard, lighting, fusing, wire sizes, branch circuits, conduits, and use of the National Electrical Code regulations in actual building mock-ups. Prerequisite: ELC 1113, DFT 1110. (S)

ELC 1124-1 (Part-time) 2 6 4

ELC 1124-2 (Part-time) 3 3 4

ELC 1125 Commercial and Industrial Wiring 2 9 5

A study in layout, planning, and installation of wiring systems in commercial and industrial complexes with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems. Prerequisite: ELN 1118, ELC 1124. (S)

ELC 1125-1 (Part-time) 2 6 4

ELC 1125-2 (Part-time) 0 3 1

ELECTRONICS

ELN 124 Electronics Fundamentals 2 4 4

A course designed to develop a thorough understanding of basic electronic theory and principles and to introduce the student to the concepts, equipment, and components necessary to this understanding. Application of principles in the laboratory is an integral part of the course. Prerequisite: ELC 112. (W)

ELN 134 Intermediate Electronics 2 4 4

A direct continuation of ELN 124. Requires students to work with individual circuits and their application. Emphasis is placed on power supplies, amplifiers, oscillators, transmitters and receivers, transmission lines and antennas, switching and gating circuits, as well as the test equipment associated with the above. Identification, design and analysis, and determination of expected outputs from specific inputs of circuits are an integral part of the course. Laboratory experiments are used to substantiate theory and develop measurement techniques. Prerequisite: ELN 124. (S)

ELN 224 Advanced Electronics 2 4 4

A continuation of ELN 134. Includes application of handy rule-of-thumb approximations and simple, practical approaches to designing solid-state circuits. Students also learn how to service the solid-state and digital circuits and components in home, laboratory, and industrial systems. A significant segment of the course deals with an introduction of micro-wave theory and measurements. Prerequisite: ELN 134. (SS)

ELN 234 Digital Electronics 2 4 4

A systematic introduction to the digital circuits, the concepts, and the systems that are basic in nature. The goal is to lead the student from the simplest discrete switch devices, such as semiconductor diodes and transistors to the late high-speed integrated circuits and digital instrumentation systems. Laboratory experiments are utilized to substantiate theory. Prerequisite: ELN 224. (SS)

ELN 1118 Industrial Electronics Fundamentals 4 9 7

A study of basic theory, operating characteristics, and application of vacuum tubes such as diodes, triodes, tetrodes, pentodes, and gaseous control tubes. Includes an introduction to amplifiers using triodes, power supplies using diodes, solid state theory, and other basic applications. Prerequisite: ELC 1113. (SS)

ELN 1118-1 (Part-time) 2 6 4

ELN 1118-2 (Part-time) 2 3 3

ELN 1119 Industrial Electronic Controls 4 12 8

A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyratron tubes, solid state devices, and other basic types and systems commonly found in most industries. Prerequisite: ELN 1118. (SS)

ELN 1119-1 (Part-time) 2 6 4

ELN 1119-2 (Part-time) 2 6 4

ENGINEERING GRAPHICS

EGR 101 Engineering Graphics I 2 4 3

An introduction to the field of drafting in which the student begins the study of lettering, geometrical construction, projections, sections, auxiliary projection, revolution, pictorial drawing, intersection, and development. The drawing of fasteners, springs, and gears; detail and assembly drawings; and tracing and reproduction methods are studied. (W)

EGR 102 Engineering Graphics II 2 4 3

An introduction to different engineering aspects by lecture-lab and student involvement. Areas covered include precision measurement as used in the machine tool industry, electronic gaging, and surveying, including an introduction to the transit, tape controlled equipment, and other topics as the need arises. (S)

ENGLISH

ENG 100 Grammar **2 3 3**

A study of English grammar designed to aid the student in the improvement of self-expression. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling, intended to stimulate students in applying the basic principles of English grammar in their day-to-day situations in industry and social life. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 101 Grammar and Composition **3 2 3**

The study of the use of the English language through the mediums of grammar and written composition. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 102 English Composition **3 0 3**

The study of the English language through the medium of written composition, with emphasis on the development of the essay and the research paper. Prerequisite: ENG 101 or ENH 101. (W/SS)

ENG 103 Introduction to Literature **3 0 3**

An introduction to three genres of literature: poetry, drama, and fiction. Course is divided into three seminars, each a study of one of the three genres. Prerequisite: ENG 102 or ENH 102. (F/W/S/SS)

ENH 101 English Honors: Composition **3 0 3**

An interpretative study of classic and current fiction, with emphasis on the development of critical thought, composition skills, and research technique. Prerequisite: English Placement Inventory and recommendation. (D)

ENH 102 English Honors: Composition **3 0 3**

An interpretative study of poetry, with emphasis on scholarly analysis, oral readings, and composition skills. Prerequisite: ENG 101 or ENH 101 with recommendation. (D)

ENH 103 English Honors: Literary Analysis **3 0 3**

A study of the development of drama from the time of the fifth-century Greeks to the twentieth century, with emphasis on both oral and written interpretative skills. Prerequisite: ENG 102 or ENH 102 with recommendation. (D)

ENG 104 Report Writing **3 0 3**

The study of organization and techniques of modern report writing, with emphasis on developing typical reports, using writing techniques and graphic devices. Prerequisite: ENG 102 or ENH 102. (W/S/SS)

ENG 105 Business Correspondence **3 0 3**

A study of the basic techniques in writing business communications, with emphasis on the writing of clear, forceful, and psychologically sound letters and on the composing of clear and objective memos. (F/W/S/SS)

ENG 110 Studies in Fiction **3 0 3**

The study of fiction and the major philosophical concepts and social conflicts which are presented in fiction. Prerequisite: ENG 103. (D)

ENG 201 English Literature 3 0 3

A survey of English literature from the Anglo-Saxon invasion to the Restoration Period, 449-1660. Prerequisite: ENG 103 or ENH 103. (F)

ENG 202 English Literature 3 0 3

A continuation of English 201 beginning with the Restoration Period, 1660, to Accession of Victoria, 1837. Prerequisite: ENG 103 or ENH 103. (W)

ENG 203 English Literature 3 0 3

A continuation of English 201 and 202 beginning with the Accession of Victoria, 1837, to the twentieth century. Prerequisite: ENG 103 or ENH 103. (S)

ENG 204 American Literature 3 0 3

The study of American literature from the Puritan Age to the Romantic Movement. Prerequisite: ENG 103 or ENH 103. (F)

ENG 205 American Literature 3 0 3

A continuation of ENG 204 beginning with the Romantic Movement and extending through the Rise of Realism, with major emphasis on Poe, Emerson, Thoreau, Hawthorne, Whitman, and Melville. Prerequisite: ENG 103 or ENH 103. (W)

ENG 206 American Literature 3 0 3

A continuation of ENG 204 and 205 beginning with the Realistic Movement and extending into the twentieth century, with major emphasis on Twain, Steinbeck, Faulkner, Hemingway, Dreiser, Sandberg, Frost, Lewis, Anderson, and Porter. Prerequisite: ENG 103 or ENH 103. (S)

ENG 207 Creative Writing 3 0 3

A foundation course in writing essays, short stories, and poetry. Student work is read and discussed in class. Includes reading and discussion of contemporary writers and critics. Prerequisite: ENG 103 or ENH 103. (D)

ENG 209 Spanish Literature in Translation 3 0 3

A study of the masterpieces of Spanish literature in the drama, poetry, short story, essay, and the novel. Not to satisfy the language requirement. (D)

ENG 1102 Communication Skills 3 0 3

A study of effective communication, with emphasis on language usage in speaking and writing.

FURNITURE

FUR 102 Construction and Billing I 1 3 2

A course emphasizing proper construction of case goods and frame stock and including the study of basic construction theory; identification of furniture construction terms; interpretation and reading of furniture working drawing; information on blueprint lines, dimensioning, procedure, and notes; and basic knowledge of materials. (W)

FUR 103 Construction and Billing II 1 3 2

A continuation of FUR 102 with emphasis on making an accurate bill of material of each basic piece of furniture from factory drawings and specifications. Effect of construction on material, machine, and routing is discussed. Prerequisite: FUR 102 or approval of instructor. (S)

FUR 104 Characteristics of Wood 2 0 2

The study of basic structure of woods used by the furniture industry. Emphasis is placed on the characteristics that mostly affect these woods in manufacturing — moisture, kiln drying, machineability, glueing, and handling. Attention is given to veneers, particle board, and hardboard. Field trips to production plants are included. (F)

FUR 106 Abrasive Materials and Glues 2 2 3

A study of the types and materials in adhesives and abrasives currently used by the furniture industry. The course deals with applications, procedures, and equipment. Emphasis is given to defects and corrective measures for both categories. (S)

FUR 107 Finishing Methods and Material 2 2 3

A study of the finishing methods and materials now used by the furniture industry — process of color, filling of pores, sealing, glazing, body coats, and rubbing. Emphasis is placed on various methods of drying. Covers advantages and disadvantages of material handling, equipment needs, spray guns, conveyors, and rubbing. (SS)

FUR 108 Production Equipment I 4 0 4

A course dealing with operating procedure, capacities, and safety of woodworking equipment used in the rough machine. Includes laminating, finish machine areas, cutting tools, operational responsibilities, and field trips to production plants. (F)

FUR 109 Production Equipment II 4 0 4

A continuation of FUR 108 dealing with preassemble sanding and cabinet asembly equipment. Covers special equipment for chair manufacturing, carving, and multipurpose equipment. Includes attention to material handling and department layout and field trips to production plants. Prerequisite: FUR 108. (W)

FUR 112 Routing, Scheduling, and Process 2 2 3

A comprehensive study of materials and methods of furniture manufacturing. Includes the flow of material through various departments and equipment as now used by industry; the study of main and alternate processes and their relation to cost, labor, waste, and time; the use of charts and the study of material properties and their relation to the work cycle. Prerequisite: FUR 104, FUR 102, FUR 108 or approval of instructor. (W)

FUR 201 Practicum 0 9 3

A course consisting of supervised work experience alternating with the educational program on a schedule satisfactory to employers, the institution, and the student. Enables the student to perform a planned variety of activities required of his/her specialty. The work periods are carfully planned and closely supervised by the employer and in the institution to provide experiences and responsibilities commensurate with the capabilities of the student. An official agreement among the education institution, the student, and the employer identifies the sequence of activities to be performed by the student and defines the supervisory responsibilities for the educational element of the work. Prerequisite: student registered in a two-year occupational program in the institution. (D)

GEOGRAPHY

GEO 201 Physical Geography **3 2 4**

A course in physical science that emphasizes world and water formations, weather, soils, vegetation, map reading, and the relation of human activity to the physical environment. Lab reports provide practical experience in dealing with above concepts. (S)

GEO 202 Regional Geography **3 0 3**

A survey of the major world regions with emphasis on the techniques of thinking geographically about world problems. (S)

HEALTH

HEA 100 Cardiopulmonary Resuscitation and Multimedia First Aid **0 2 1**

A course designed to train in cardiopulmonary resuscitation and multimedia first aid procedures. Students completing both components of the course are certified by the American Red Cross. (D)

HEA 200 Allied Health Management Procedures **3 0 3**

A course designed for students in health care fields who have had no experience in management. Includes interpersonal relationships, communications, personnel management, and work organization. Motivation and the practical aspects of organizational planning are discussed along with problem solving techniques and the ethical aspects of management. (SS)

HISTORY

HIS 101 Western Civilization **3 0 3**

A survey of the ancient near East, the classical civilizations of Greece and Rome, and the new religious civilizations of the Middle Ages. (F/W/SS)

HIS 102 Western Civilization **3 0 3**

A survey of the Ages of the Renaissance and the Reformation; exploration, colonization, and the Commercial revolution; the Age of Absolutism; the Age of Democratic Revolutions; and the Napoleonic Era. (W/S/SS)

HIS 103 Western Civilization **3 0 3**

A survey of the Industrial Revolution, the European political revolts of 1830 and 1848, the political unification of Germany and Italy, World War I and its aftermath, the rise of European totalitarian states, the upsurge of nationalism in Africa and the Orient, World War II, and the Cold War Communist-Free World competitive coexistence. (S/SS)

HIS 201 American History **3 0 3**

The study of the origins and development of the United States through the presidential election of 1840. (F)

HIS 202 American History **3 0 3**

The study of the history of the United States covering the sectional conflict, the Civil War Reconstruction, and the Black experience in America through the 1960's. (W)

HIS 203 American History **3 0 3**

The study of the history of the United States in the twentieth century. (S)

HIS 206 North Carolina History **3 0 3**

A survey of events and developments occurring in the history of the state. Includes European background and early settlers; the Colonial, Antebellum, and Reconstruction periods; and the Modern period. (D)

HIS 207 American Ethnic **3 0 3**

A course surveying American history from the perspective of ethnic minority groups including Afro-Americans, American Indians, Oriental-Americans, and Spanish-Americans. It seeks to aid students in understanding the multi-ethnic composition of this nation of immigrants and to increase acceptance of different peoples.

HUMAN DEVELOPMENT

HDEV 102 Human Potential Seminar **0 2 1**

A structured group process with emphasis on positive and constructive feedback and self awareness. (F)

HDEV 103 Career Decision Making **1 0 1**

A course designed to aid the student in making a career-oriented assessment of abilities, personality needs, interests, and values, with additional emphasis on current manpower trends. (F)

HUMANITIES

HUM 101 Personal and Cultural Appreciation I **4 0 4**

A systematic study of the great ideas of each period of western civilization and the influence on the artistic, dramatic, literary, and musical expressions of these periods, with an emphasis on developing a greater appreciation and understanding of people and their culture. Prerequisite: ENG 103 or ENH 103. (D)

HUM 102 Humanities in the Twentieth Century **4 0 4**

A critical study of specific selections from modern literature, art, and philosophy and their relevance to American life in the rapidly changing technological and nuclear age. Prerequisite: ENG 103 or ENH 103. (D)

HUM 201 American Women's Studies **3 0 3**

A study of the history, literature, and social roles of women from colonial America to the present. (D)

INDEPENDENT STUDY

IST 199; T-IST 199; IST 1199 Independent Study **1 to 6 credit hours**

A course providing an opportunity for a student to develop a study project in any area in which professionally qualified instruction is available. The student develops the project in a conference with the advisor and instructor. Approval request forms are then approved by the registrar and the department chairman. Credit earned generally meets elective requirements of a degree or diploma. Exact amount of credit depends on duration and depth of project but will not exceed six credit hours. (D)

IST 299; T-IST 299 Independent Study **1 to 6 credit hours**

A course providing an opportunity for the second-year student to develop a study project in any area in which professionally qualified instruction is available. The student develops the project in a conference with the advisor and instructor. Approval request forms are then approved by the registrar and the department chairman. Credit earned generally meets elective requirements of a degree. Exact amount of credit depends on duration and depth of project but will not exceed six credit hours. (D)

INDUSTRIAL SCIENCE

ISC 102 Industrial Safety **3 0 3**

An examination of problems of accidents and fire in industry. Covers management and supervisory responsibility for fire and accident prevention. Additional topics include accident reports, good housekeeping, protective equipment, accident code and fire regulations, safety instruction, use of safety committee, OSHA regulations, insurance bureau, and how to promote safety programs. (S)

ISC 103 Production Control **1 3 2**

A study of day-to-day plant direction, forecasting, product planning and control, scheduling, dispatching, and expediting. Case histories are discussed with corrective action developed. Prerequisite: MAT 110 or consent of instructor. (SS)

ISC 201 Industrial Organization and Management **3 0 3**

A study of organizational structure for industrial management. Covers operational and financial activities, including accounting, budgeting, banking, credit and industrial risk, forecasting and markets, and selection and layout of physical facilities. Also includes selection, training, and supervision of personnel as found in typical industrial organizations. (F)

ISC 202 Quality Control **3 0 3**

An examination of principles and techniques of quality control and cost saving. Includes organization and procedure for efficient quality control functions, responsibilities, structure, costs, reports, records, personnel, vendor-customer relationships, sampling inspections, process control, and tests for significance. (S)

ISC 203 Motion Study **2 2 3**

An examination of types of methods studies and their applications. Includes process charts, analysis sheets, time study, work simplification, and skill and effort rating. (W)

ISC 204 Value Analysis **3 0 3**

An introduction to the modern concept in the control of manufacturing production, providing the student an opportunity to study a production system with the specific purpose of identifying unnecessary costs. The objective of the concepts and techniques of value analysis is to make possible a degree of effectiveness in identifying and removing unnecessary costs by the use of sound decisions through a common sense approach. (S)

ISC 205 Maintenance Management **3 0 3**

An examination of administration, decision making, setup, and inspection of various programs such as preventive maintenance, repair parts, inventory control, and organization and functions of maintenance. Various aspects of management, engineering resources analysis, and maintenance facilities are covered.

ISC 207 Foremanship Supervision 3 0 3

A study of the foreman's responsibility for planning, organizing, directing, controlling, and coordinating supervisory activities. Includes basic functions of an organization and supervisory responsibility in carrying out the objectives in accordance with the organization's plan. Includes such topics as establishing lines of authority, functions of departments of units, duties and responsibilities, policies and procedures, and rules and regulations. Prerequisite: BUS 272 or consent of instructor. (D)

ISC 209 Plant Layout 3 2 4

A practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Covers layouts for small and medium-sized plants, layout fundamentals, and selection of production equipment and materials handling equipment. Includes effective management of men, money, and materials in a manufacturing operation. Prerequisite: DFT 102. (D)

ISC 1101 Industrial Safety 3 0 3

A study of the development of industrial safety. Includes accident occurrence and prevention, analysis of accident causes and costs, basic factors of accident control, safety education and training, accident reporting and records, employer and employee responsibility, safety organizations, first aid, mechanical safeguards, personal protective equipment use, materials handling, fire prevention and protection, safety codes, and accident statistics. (F)

ISC 1103 Production Control 1 3 2

A study of production planning, dispatching, progress reporting, and adjusting and replanning systems and charts which help effectively to control production. Material wastes controls, labor controls, indirect labor controls, and overhead controls as they relate to production control are included. (D)

ISC 1110 Time Study and Time Standards 2 2 3

A course with the primary emphasis on use of stop watch. Includes breaking down repetitive operation into elements, timing the elements, Wilk readings, operator performance rating, avoidable delays, allowances for unavoidable delays, setting time standards, timing delays, technique of work sampling, bench marks for "normal work pace," motion study such as is needed to intelligently use predetermined time standards, and practice in building up standard times for specific operations using tables of predetermined times for the elements of the operation. (D)

ISC 1113 Quality Control 3 0 3

A study in setting quality standards for customer acceptance. Includes final inspection to police these standards; prior inspections and specifications to achieve final quality standard at minimum cost; dimensions, tolerances, gages, and other techniques to control dimensions; and qualities other than dimensions which are more intangible. Covers how to set standards and police performance in such areas and receiving inspection, in-process inspection, and sampling. (D)

ISC 1121 Cost Records and Cost Estimates 3 0 3

A study of estimate of cost (materials, labor, overhead, etc.). Materials cost deals with price and grade, cost of delivery and shortage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover, and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. Prerequisite: approval of instructor. (D)

ISC 1123 Work Measurement 3 2 4

The basic study of the principles of work simplification, motion study fundamentals, and time study techniques. Includes the use of predetermined time schedules and the use of the stop watch as they apply to task performance of the operator in the work performance. Also covers the study of flow diagrams and methods of evaluation for production purposes. Prerequisite: approval of instructor. (D)

ISC 1125 Supervisory Responsibility 3 0 3

A course dealing with such topics as fundamentals of supervision, relationships on the job, human relations, performance and job evaluation, the art of motivating people, and effective communications. (D)

LIBRARY — MEDIA*

EDM 101 Introduction to Libraries and Information Centers 3 0 3

The general background and philosophy of information service, including a brief general background and philosophy of information centers and their recent developments. Includes an introduction to classification systems and organization of materials, functions and use of information centers, terminology, and a study of the duties and qualifications of the personnel who staff these centers. (F)

EDM 102 Library Processes I 3 0 3

A study of policies and practices of acquisition of various kinds of materials, information relative to their sources, and the techniques of ordering. Includes borrowing films and film rentals, interlibrary loan materials, microfilm, etc. (W)

EDM 103 Library-Media Resources 3 0 3

A study of general and special reference works, catalogs, and other basic sources of information. Also includes practice in preparation of bibliographies and emphasizing correct form of all kinds of media. (S)

EDM 104 Audiovisual Equipment and Production 3 2 5

A survey course as to the nature and use of audio-visual materials. Emphasis is on the care and operation of equipment, the communication characteristics of the various non-print media, and the utilization of AV services in a learning resource center. (W/S)

EDM 201 Library Processes II 3 2 4

A study of routine aspects of simple cataloging. Includes a study of the organization of media collections, bibliographic searching for cataloging information, practice in descriptive cataloging, production and filing of catalog cards, and physical preparation of materials for use. Prerequisite: BUS 102. (F)

EDM 202 Library-Media Procedures 3 2 4

A study of the principles of various circulation systems and their attendant procedures. Includes supervised performance of routines that are common to information centers, such as scheduling, recordkeeping, inventory, shelving, filing, processing and mending materials, and handling equipment. (W)

EDM 203 Practicum 2 6 4

A supervised learning experience in which students are placed in an approved location for six hours per week under a professional librarian or media specialist, putting into practice the various skills learned. In addition, two hours a week are spent in group discussion of work oriented problems and personal development. Prerequisite: EDM 101, EDM 102, EDM 103, EDM 201, EDM 104. (F/W/S/SS)

EDM 204 Practicum 2 6 4

A continuation of EDM 203 with six hours per week of practice work in an approved location and two hours a week in group discussions of work oriented problems and personal development. Prerequisite: EDM 203. (F/W/S/SS)

EDM 206 A Survey of Children's Literature 3 0 3

A study of children's reading interests, significant authors and illustrators, indexes to children's literature, and bibliographies and aids in the selection of children's books. Covers reading in books for children through the intermediate level. (D)

*NOTE: Library-media courses are offered in alternate years.

MACHINE SHOP

MEC 101 Machine Processes 1 5 3

An introductory course designed to acquaint the student with basic hand tools, safety procedures, and machine processes of modern industry. Includes a study of measuring instruments, characteristics of metals, and cutting to become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. (F)

MEC 102 Machine Processes 1 5 3

A study of advanced operations on lathe, drilling, boring, and reaming machines. Includes milling machine theory and practice. Provides a thorough study of the types of milling machines, cutters, jig and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed. Prerequisite: MEC 101. (W)

MEC 103 Machine Processes 1 5 3

A study of modern machine tools of industry, including theory and practice with shaper, slotter, planner, turret lathe, screw machine, and grinding and finishing machines. Also covers gear design and the processes of gear manufacturing. Prerequisite: MEC 102. (S)

MEC 114 Shop Practice 1 6 3

A shop practice course designed to acquaint the student with basic fundamentals of installation, maintenance, and repair of machine tools. Machine maintenance and accuracy are emphasized. Slip and press fits are produced to include bearing assembly.

MEC 122 Production Procedures 4 3 5

A study of product planning and control, scheduling, and routing of operations. Principles and techniques of quality control and cost savings, sampling inspections, and graphs and charts are emphasized. Both statistical and dimensional quality control is reviewed as well as the different processes in producing an item. Prerequisite: MEC 102.

MEC 201 Machine Processes 1 6 3

A study of newer concepts of work handling and the automatic machining process. Includes chipless production and new techniques in metal forming. Also includes analysis of high-energy forming, ultrasonic machining, electrolytic metal removal, chemical milling, numerical controls, and simplified building block numerical control systems. Prerequisite: MEC 103. (F/D)

MEC 205 Strength of Materials 3 2 4

A study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns, and machine components. Prerequisite: PHY 106, T-MAT 103. (F)

MEC 207 Tool Making 3 3 4

A course surveying the actual construction of molds with topics of tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold colling, ejector pins, and multi-cavity molds. Includes selection of materials, use of inserts, two-color molding, and mold building and use. Prerequisite: PLA 107. (W/S)

MEC 210 Physical Metallurgy 3 3 4

An introductory course in metallurgy covering a basic study of the properties of metals and alloys. Includes analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Also covers solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems. Prerequisite: PHY 101. (F)

MEC 211 Physical Metallurgy 3 3 4

A study of the properties of metals and alloys, the reaction of metals, diffusion, carburizing, metal bonding and homogenization, recrystallization and grain growth, age, hardening, nitriding, internal oxidation, and heat treatment of steel. Includes laboratory experiments and demonstrations. Prerequisite: MEC 210. (W)

MEC 212 Practical Automation 3 2 4

A comprehensive study of automation as it is interpreted and practiced by American industry today. Covers the fundamentals of automation and its effects in industrial productivity, labor supply and demand, equipment, and processes. Students solve problems encountered while installing an automated system. (D)

MEC 213 Production Planning 3 3 4

A study in day-to-day plant direction. Includes forecasting, product planning and control, scheduling, dispatching, routing, and inventory control. Case histories are discussed in the classroom and courses of corrective action are developed. Also includes drafting room layouts for planning and control. Prerequisite: DFT 102, MEC 201. (D)

MEC 214 Tool Engineering 3 3 3

An introduction to the problems of tool engineering with emphasis on planning the processes of production, designing, and developing the necessary tools and utilizing available manufacturing facilities. Includes practical analysis and comparison of the use and cost of tools, jigs and fixtures, dies, molds, and gauges as they are utilized in modern day manufacturing and production. Prerequisite: DFT 102, MEC 201. (D)

MEC 217 Engineering Material and Processing and Testing 3 3 4

An introductory study of the common materials used in engineering, such as woods, metals, concrete, plastics, etc., and the related physical testing to determine their properties and strengths. Emphasis is placed upon problem solving and engineering application. Prerequisite: PLA 106 or approval of instructor. (D)

MEC 222 Rigging and Material Handling 2 3 3

An introduction to transporting, conveying, transferring, self-loading, and bulk-handling equipment. Includes use of wire rope, slings, chains, scaffolds, and ladders. Proper storage of materials is also covered. (W)

MEC 235 Hydraulics and Pneumatics 3 3 4

An examination of the basic theories of hydraulic and pneumatic systems with a look at combinations of systems in various circuits. Includes basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators, and reservoirs. (S)

MEC 237 Control Systems 3 3 4

A study of hydraulic, pneumatic, mechanical, electrical, and electronic control systems and components. Covers basic description, analysis, and explanation of operation. Also includes typical performance characteristics, limitations on performance, accuracy, applications, and their utilization in industrial processes. Prerequisite: PHY 102, ELC 101. (S)

MEC 298 Mechanical Problems Solving 2 3 3

A basic study related to special problems encountered in the mechanical area. Mechanical advantages, motors, controls, and types of movements are investigated. General mechanical operations and maintenance as well as production line problems are surveyed. Prerequisite: MEC 102 or approval of instructor. (F)

MEC 299 General Maintenance and Repair 2 3 3

A course to acquaint the student with the basic fundamentals of installation, maintenance, and repair of machine tools. Emphasis is on machine maintenance and accuracy. Miscellaneous hydraulic, pneumatic, and lubrication devices are installed and maintained. Methods of rigging and machine installation, including location, leveling, and fastening, are covered. The use of precision measuring tools and checking for accuracy, squareness, and correct center distances are stressed for prestart inspection. Prerequisite: MEC 102 or approval of instructor. (W)

MEC 1101 Machine Shop Theory and Practice 4 12 8

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care, and use of basic hand tools and precision measuring instruments; elementary layout procedures; and processes of lathe, drill press, and grinding (off-hand)

and milling machines. Includes both theory and practice. (F)

MEC 1101-1 (Part-time) 2 6 4

MEC 1101-2 (Part-time) 2 6 4

MEC 1102 Machine Shop Theory and Practice 4 12 8

A course in advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, and milling machine shaper. The student is introduced to the basic operations on the cylindrical grinder and selects projects encompassing all the operations, tools, and procedures thus far used and those to be stressed throughout the course. Prerequisite: MEC 1101. (W)

MEC 1102-1 (Part-time) 2 6 4

MEC 1102-2 (Part-time) 2 6 4

MEC 1103 Machine Shop Theory and Practice 4 12 8

A course providing advanced work on the engine lathe; turning, boring, and threading machines; grinders; milling machine; and shaper. Includes an introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring of spur, helical, and worn gears and wheels. The trainee uses precision tools and measuring instruments such as vernier height gages, protractors, comparators, etc. Basic exercises are given on the turret lathe and on the tool and cutter grinder. Prerequisite: MEC 1102. (S)

MEC 1103-1 (Part-time) 2 6 4

MEC 1103-2 (Part-time) 2 6 4

MEC 1104 Machine Shop Theory and Practice 3 12 7

A course providing for the development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly, and inspection. Includes additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Covers special procedures and operations, processes and equipment, observing safety procedures, and establishing good work habits and attitudes acceptable to the industry. Prerequisite: MEC 1103. (S)

MEC 1104-1 (Part-time) 2 6 4

MEC 1104-2 (Part-time) 1 6 3

MEC 1112 Machine Shop Processes 0 6 2

A study to acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Provides experiences in the basic fundamentals of drill press and lathe operation, hand grinding of drill bits and lathe tools, and set-up work applied to the trade. (D)

MEC 1113 Shop Processes 2 3 3

A study of practices used in metalworking shops. Includes introduction to how materials can be utilized and to the processes of shaping, forming, and fabricating of metals. Includes a demonstration of the metalworking lathes, grinders, drills, milling machines, shapers, planers, saws, broachers, gear cutting machines, finishing machines, and a study of the capabilities of these machines. (D)

MEC 1114 Shop Processes 2 3 3

A comparison of the unit production and mass production systems. Casting, forging and allied processes, and welding and sheet metal working processes are demonstrated and discussed. Mass-production methods are studied in relationship to precision dimensional control. Prerequisite: MEC 1113. (D)

MEC 1115 Treatment of Ferrous Metals **2 3 3**

An investigation of the properties of ferrous metals and tests to determine their uses. Includes some chemical metallurgy to provide a background for the understanding of the physical changes and their causes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron are topics for study. (S)

MEC 1116 Treatment of Nonferrous Metals **2 3 3**

An investigation of the properties of nonferrous metals and tests to determine their uses. Primary interest is on aluminum, magnesium, zinc, lead, and chromium. Nonferrous alloys such as brass, bronze, bobbit, and cemented carbides are studied. A discussion of stainless steel is included. Prerequisite: MEC 1115. (SS)

MEC 1117 Basic Metals Identification **1 2 2**

An elementary and practical approach to metals and their identification, classification, and basic structure with major emphasis on ferrous metals. Testing and identification tests utilize several methods including hardness, impact, tensile, color, spark, machining, and magnetic. (F)

MEC 1118 Advanced Machine Processes **3 12 7**

An advanced study of the operations of the machine shop utilizing all machines. Includes instruction on gauging practices, applications to the finished product, and various gauging procedures. Students are assigned individual projects by which they gain proficiency on the various types of machines. Prerequisite: MEC 1104. (D)

MEC 1118-1 (Part-time) **2 6 4**

MEC 1118-2 (Part-time) **1 6 3**

MEC 1119 Advanced Machine Processes **3 9 6**

A study of the more complex machines within the shop. Offers a step-by-step study of tooling for the automatic screw machines, turret lathe, and numerical tape-controlled machine. Automatic chucking and clamping systems are emphasized. Prerequisite: MEC 1118. (D)

MEC 1120 Machine Repair **1 3 2**

A course offering the student a look into the machines themselves. Possible reasons for machine break-down are explored. Emphasis is placed on the proper maintenance of machinery as well as preventive maintenance. Repair and maintenance manuals for various machines are reviewed. Prerequisite: MEC 1104. (D)

MEC 1121 Machine Repair **1 3 2**

A continuing study of the inner parts of machinery. Special interest is placed on commercial standards, designs, and development of necessary tools and accessories. A comparison of purchase price on manufactured items of replacement parts is studied. Prerequisite: MEC 1120. (D)

MEC 1122 Production Procedures **4 3 5**

A study of product planning and control, scheduling, and routing of operations. Principles and techniques of quality control and cost saving, sampling inspections, and graphs and charts are emphasized. Both statistical and dimensional quality control are reviewed as well as the different processes to produce an item. Prerequisite: MEC 1104. (SS)

MEC 1123 Shop Processes **2 3 3**

A continuation in the study of methods of manufacturing parts. Metal machining is the main emphasis in this course. Further operations on metal cutting saws, lathes, milling machines, grinders, and introduction to gear cutting equipment are reviewed. How dimensional control and precision measurement coincide with drafting procedures is also covered. Prerequisite: MEC 1114. (SS)

MEC 1124 Shop Processes **2 3 3**

A discussion of some of the newer concepts of work handling and automatic machining processes. Instructions are offered on automatic screw machines, turret lathes, and numerical controlled systems as well as chipless machining. Major emphasis is on the integration of drafting processes to the machined part and how each affects the other. Prerequisite: MEC 1123. (D)

MEC 1139 Basic Hydraulics and Pneumatics **3 3 4**

A study of the basic theories and uses of hydraulic and pneumatic systems and the combination of systems. Includes basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, filtration, accumulators, and reservoirs. Students install and maintain the components. Prerequisite: PHY 1101. (D)

MEC 1147 Systems of Measurement and Measuring Tools **2 0 2**

A basic study of measurement and the various systems. Covers how to use and read the various rules, scales, calipers, micrometers, and other precision measuring tools used in mechanical work. Also includes the reading of the basic electrical meters used in testing. (D)

MEC 1201 Machine Processes **3 12 7**

An introduction to the tools, instruments, machines, and methods used in the tool and die shop. Basic tool and die making procedures are stressed, especially as they pertain to simple blanking or bending dies and to tooling used to locate and hold parts in production. Students work on selected projects to develop a proficiency level. Prerequisite: machine shop graduate or approval of instructor. (D)

MEC 1201-1 (Part-time) **2 6 4**

MEC 1201-2 (Part-time) **1 6 3**

MEC 1202 Machine Processes **3 12 7**

An advanced study of the operation of individual parts as they pertain to tools, dies, or fixtures. Includes special training instructions on gauging practices, assembly, and its application of the finished product. Students are assigned individual projects to help develop their proficiency in the use of various types of machine tools. Prerequisite: MEC 1201. (D)

MEC 1202-1 (Part-time) **2 6 4**

MEC 1202-2 (Part-time) **1 6 3**

MEC 1203 Machine Processes **3 12 7**

A continuation of MEC 1202 providing a detailed study of die sets for the punch press and molding machinery. Emphasis is given to use of strippers, knock-outs, material guides, and other supportive parts. Project work includes finish grinding, honing, and lapping as necessary to the assembly of the finished tool. Students are allowed to use their own reasoning as it pertains to the finished product. Prerequisite: MEC 1202 or approval of instructor. (D)

MEC 1203-1 (Part-time) 2 6 4

MEC 1203-2 (Part-time) 1 6 3

MEC 1204 Machine Processes 3 12 7

A course including the use of die stops, ejector pins, and production feeding processes. Covers stock strip layout, selection of purchased parts for dies and molds, and survey of setup and startup procedures for tools, dies, and molds. Also includes a review of the final assembly of subparts. Prerequisite: MEC 1203 or approval of instructor. (D)

MEC 1204-1 (Part-time) 2 6 4

MEC 1204-2 (Part-time) 1 6 3

MEC 1205 Strength of Material 2 3 3

A study of the principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. Includes an analysis of stresses as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns, and machine components. (D)

MEC 1207 Toolmaking 3 3 4

A course surveying the actual construction of molds and covering tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold colling, ejector pins, and multicavity molds. Includes selection of materials, use of inserts, two-color molding, and mold building and use. Prerequisite: MEC 1201 or approval of instructor. (D)

MEC 1210 Metallurgy 2 3 3

An introductory course in metallurgy covering the study of the properties of metals and alloys. Covers an analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Also includes solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems. (D)

MEC 1214 Tool Design and Planning 2 3 3

A course in planning a production area and involving isolating the areas needing tools and fixtures for production and estimating the cost for tooling the assignment. Typical tool design is employed with blueprints reflecting standard procedures. Design from the drawing board is stressed. Prerequisite: machine drawing or approval of instructor. (D)

MEC 1235 Hydraulic and Pneumatics 2 3 3

A study of the basic theories of hydraulic and pneumatic systems. Covers combinations of systems in various circuits. Also includes basic designs and functions of circuits and motors, controls, electro-hydraulic servomechanism, plumbing, filtration, accumulators, and reservoirs. (D)

MEC 1298 Special Problems in Mechanics Maximum Credit 6 hours

A course designed to broaden the students' experiences in the areas of mechanics. Includes problems involving experimentation, investigation, and writing of a research report involving such topics as automobiles, mechanical operations, and general maintenance and repair required for machinery. Prerequisite: all curriculum courses. (D)

MEC 1299 Special Problems **3 6 5**

A study of special problems within the metals industry such as tumbling, surface finish, and other related conditions. Each student will be required to follow a complete system from design to production stage to review conditions as viewed by production. Flashing and overheating of molded material are also discussed. (D)

MEC 1299-1 (Part-time) **2 3 3**

MEC 1299-2 (Part-time) **1 3 2**

MATHEMATICS

MAT 090 Arithmetic **3 2 4**

A course covering the basic operations of addition, subtraction, multiplication, and division as performed on whole numbers. Includes greatest common factor, least common multiple, common fractions, and decimal fractions. Also included are ratio and proportions, percentages, and formula evaluation. Completion of this course does not earn credit toward the completion of a diploma or a degree. (F/D)

MAT 091 Algebra **3 2 4**

An elementary couse in algebra including topics such as operations on signed numbers, exponents, operations on polynomials, special products and factoring, algebraic fractions, solving and graphing linear equations, radicals, quadratic equations, and properties of the imaginary unit. Completion of this course does not earn credit toward the completion of a diploma or a degree. Prerequisite: MAT 090 or satisfactory score on the placement test. (F/D)

T-MAT 100 Mathematics **3 0 3**

A study in practical number theory. Includes analysis of basic operations of addition, subtraction, multiplication, and division. Covers fractions, decimals, powers and roots, percentages, and ratio and proportion. Also includes plane and solid geometric figures used in industry, measurement of surfaces and volumes, an introduction to algebra used in trades, and practice in depth. (F)

MAT 101 College Math **3 0 3**

A study of college mathematics including the study of polynomials, algebraic fractions, exponents, radicals, and an introduction to the metric system. Prerequisite: MAT 091 or a satisfactory score on the placement test. (F/W/S)

T-MAT 101 Technical Math **5 0 5**

The first course in a three-course technical math sequence. Topics of study include the arithmetic of whole numbers, decimals, common fractions, percents, signed numbers, and algebraic expressions. (F)

MAT 102 College Math **3 0 3**

A further study in college mathematics, this course includes algebraic equations, mathematical method, mathematical logic, properties of number systems, and an introduction to computers. Prerequisite: MAT 101. (W)

T-MAT 102 Technical Math 5 0 5

The second course in a three-course technical math sequence. Topics of study include linear equations, special products, factoring, algebraic fractions, and elementary plane geometry. Prerequisite: T-MAT 101 or equivalent. (W)

MAT 103 College Math 3 0 3

The third and final course of a sequence in college mathematics. Topics include vectors and matrices, inequalities, functions and relations, algebraic functions, and exponential and logarithmic functions. Prerequisite: MAT 102. (S)

T-MAT 103 Technical Math 5 0 5

The third course in a three-course technical math sequence. Topics include exponents, radicals, quadratic equations, and trigonometry. Prerequisite: T-MAT 102 or equivalent. (S)

MAT 110 Business Math 5 0 5

A course stressing the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business. Prerequisite: MAT 090 or satisfactory score on placement test. (F/W/S)

MAT 111 Algebra 5 0 5

An axiomatic presentation of the real number system as an ordered field in which definitions, axioms, and theorems are used to justify the traditional algebraic processes involving such topics as algebraic fractions, factoring, absolute value, equations, inequalities, radicals, and exponents. Additional topics are various types of functions, including the exponential functions, logarithmic functions, and the circular functions. Prerequisite: MAT 101 or satisfactory score on the placement test. (F)

MAT 112 Trigonometry 5 0 5

A continuation of MAT 111 and including the study of the trigonometric functions, identities, radian measurement, trigonometric equations, complex number, theory of equations, systems of equations, binomial theorem, probability, and sequence. Prerequisite: MAT 111. (W)

MAT 113 Analytical Geometry and Calculus I 5 0 5

A course including the study of the coordinate system, loci, linear and quadratic graphs, conics, limits, continuity, and an introduction to differentiation. Prerequisite: MAT 112 or equivalent. (S)

MAT 201 Analytical Geometry and Calculus II 5 0 5

A continuation of differentiation and applications of the derivative. The topics of study are related rates, maximum and minimum values of a function, Rolle's theorem, the mean-value theorem, and inflection. The indefinite integral and its properties are also introduced. Prerequisite: MAT 113 or equivalent. (SS)

T-MAT 201 Mathematics (Decimal-Metric Conversion) 3 0 3

A course involving practice problems in conversion of fractions to decimal and decimal to fractions, metric conversions to English systems, and proper use of conversion tables. Basic forms of algebraic solutions for the unknown are practiced. Prerequisite: T-MAT 100. (W)

MAT 202 Analytical Geometry and Calculus III 5 0 5

A continuation of the study of the indefinite and definite integrals and their applications. Areas, volumes, moments, work, and fluid pressure are included. Also included are transcendental functions, integration by parts, integration by substitutions, and integration by partial fractions. Prerequisite: MAT 201 or equivalent.

MAT 203 Analytical Geometry and Calculus IV 5 0 5

A study including multiple integration, approximate integration, improper integrals, indeterminate forms, infinite series, and expansion of functions and vectors. Prerequisite: MAT 202 or equivalent. (W)

MAT 214 Statistics 5 0 5

A study of the theory of statistics and its application in modern business. Includes kinds of regularity that exist among random fluctuations and experience in associating and using mathematical models to interpret physical phenomena and predicting the outcomes of experiments related to practical business problems. Prerequisite: MAT 101 or MAT 110, T-MAT 101. (F).

MAT 220 Differential Equations 5 0 5

A study of the methods of solution of ordinary differential equations. Prerequisite: MAT 203. (S)

MAT 1101 Fundamentals of Math 3 0 3

A study of practical number theory. Includes analysis of basic operations of addition, subtraction, multiplication, and division. Covers fractions, decimals, powers and roots, percentages, and ratio and proportion. Also includes plane and solid geometric figures used in industry, measurement of surfaces and volumes, an introduction to algebra used in trades, and practice in depth. (F)

MAT 1101W Practical Math for Welders 5 0 5

An in-depth review of the basic operations of addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. The study of metric units as well as linear, angular, and surface measurements are included. Emphasis is placed on measuring and using measurements to solve welding problems. (W)

MAT 1102 Algebra 5 0 5

A study of basic concepts and operations of algebra. Includes historical background of base-10 number system; algebraic operations; addition, subtraction, multiplication, and division; fractions, letter representation, grouping, factoring, ratio and proportions, variation, graphical and algebraic solution of first degree equations; and solution of simultaneous equations by addition, subtraction, graphing, exponents, logarithms, tables, and interpolation. (W)

MAT 1103 Geometry 3 0 3

A study of fundamental properties and definitions. Covers plane and solid geometric figures, selected general theorems, geometric construction of lines, angles, and plane figures. Includes dihedral angles, areas of plane figures, and volumes of solids. Geometric principles are applied to shop operations. (W)

MAT 1104 Trigonometry 3 0 3

A study of trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions and trigonometric equations. All topics are applied to practical problems. (S)

MAT 1115 Electrical Math 5 0 5

A study of fundamental concepts of algebra; basic operations of addition, subtraction, multiplication, and division; solution of first order equations, use of letters and signs, grouping, factoring, exponents, and ratios and proportions; solution of equations, algebraically and graphically; a study of logarithms and use of tables and introduction to trigonometric functions and their applications to right angles; and a study of vectors for use in alternating current. (F)

MAT 1120 Applied Mathematics 2 2 3

A course in practical problems especially selected to insure mastery of mathematical principles applied to the automobile trades. (F)

MAT 1123 Math: Machinist 3 0 3

An introduction to gear ratio, lead screw, and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems. Concludes with an introduction to compound angle problems. Prerequisite: MAT 1104. (SS)

MAT 1201 Trigonometry 5 0 5

A course stressing trigonometric ratios, solving problems with right angles using tables or calculators, and interpretation of tables. Covers solving for sides or angles using the laws of sine and cosine. Includes a survey of the use of inverse functions of trigonometric equations. All topics are applied to practical problems found within a machine shop. Prerequisite: MAT 1123 or approval of instructor. (D)

MAT 1202 Uses of the Handbook 3 0 3

A course featuring practical problems especially selected as they pertain to the manufacture of tool parts. Stresses how to read and interpret the machinery handbook to insure mastery of mathematical principles as they apply to the tool and die trade. Prerequisite: MAT 1101 or approval of instructor. (D)

MUSIC

MUS 101 Music Appreciation 3 0 3

An historical study of music, with emphasis on simple form and analysis, instrumentation, aesthetics, masterpieces, and other significant works. (F/W/S)

MUS 102 Elementary Theory of Music I 3 0 3

A study of basic fundamentals of music, with emphasis on ear-training, sight-singing, and keyboard harmony. The study of harmony includes note reading and notation, major scales with related and parallel minors, major and minor triads and dominant sevenths, key signatures, intervals, enharmonics, compositional devices, and rhythmic textures. (D)

MUS 103 Elementary Theory of Music II 3 0 3

A continuation of the study of music fundamentals, with emphasis on figured bass, diminished and augmented chords, chord inversions, four-part harmonic progressions, cadences, secondary dominants, transposition, modulation, improvisation, pentatonic and whole tone scales, medieval modes, phrase structure, nonharmonic tones, pivot chords, sequences, chromatic chords, Neopolitan sixth, and chords of the ninth, eleventh, and thirteenth. Prerequisite: MUS 102. (D)

MUS 104 Elementary Theory of Music III **3 0 3**

An advanced study of music theory, with emphasis on sight-singing; rhythmic, melodic, and harmonic dictation; and keyboard harmony. This course is a more in-depth study of elements introduced in MUS 102 and MUS 103. Prerequisite: MUS 102, MUS 103. (D)

MUS 105 Chorus **0 2 1**

A group singing class, with emphasis on classical, semi-classical, and popular contemporary songs. (F/W/S)

MUS 106 Voice **0 2 1**

A study of the principles of voice production and expressive singing, with emphasis on both group singing and solo song literature. For the beginning voice student. (No knowledge of music required). (F/W/S)

MUS 107 Piano **0 2 1**

A course for students entering at any level of proficiency, with emphasis on improving playing technique. No previous experience necessary. May be used as a refresher course for those out of touch with the keyboard or as a course for those who wish to develop new skills at any level. Evaluations based on progress from one level of proficiency to another, depending on the level at which the student begins. Up to 6 credit hours may be accumulated. (F/W/S/SS)

MUS 110 Recreational Music **3 0 3**

A study of the value and use of music in a recreational program, with emphasis on instruments, aids, and materials. Practice sessions and demonstrations of teaching techniques are offered. (W)

MUS 112 Intermediate Band **0 2 1**

A small ensemble for students who have ability playing any band instrument, with emphasis on instrument mastery and performance. Evaluations based on improvement. Up to 6 credit hours may be accumulated. Prerequisite: ability to play a band instrument at the intermediate level. (W)

MUS 113 Advanced Band **0 2 1**

A large ensemble for students who have an advanced ability and experience playing any band instrument, with emphasis on extending instrument mastery, playing a variety of musical styles, and learning a variety of musical interpretations. Evaluations based on improvement. Up to 6 credit hours may be accumulated. Prerequisite: ability to play any band instrument at the high school level. (F/W/S/SS)

MUS 120 Guitar **0 2 1**

A study of guitar, with emphasis on developing finger dexterity, forming chords, strumming, rhythmic patterns, and tuning the guitar. Lessons are presented in logical sequential steps. The course stresses good musicianship and teaches proper playing techniques. The overall course content is concerned with theory, harmony, reading from musical notation, and rhythm. (D)

MUS 201 American Music **3 0 3**

A study of Western music as it existed and exists on the American continent from 1640 to the present, including music from all genres, Afro-American, and Indian music. (D)

NUCLEAR MEDICINE TECHNOLOGY

NMT 101 Nuclear Medicine Technology I 1 0 1

An orientation to the field of nuclear medicine technology. Elementary patient care procedures and professional ethics are emphasized. (F)

NMT 102 Nuclear Medicine Technology II 1 0 1

An introduction to the radiopharmaceuticals and instrumentation used in nuclear medicine. Radiation safety procedures are discussed. Prerequisite: NMT 101. (W)

NMT 103 Nuclear Medicine Technology III 1 0 1

A study of the *in-vivo* nuclear medicine procedures. Patient preparation for these procedures is emphasized. Prerequisite: NMT 102. (S)

NMT 104 Nuclear Medicine Technology IV 2 0 2

A continuation of the nuclear medicine technology which emphasizes special *in-vitro* procedures. Prerequisite: NMT 103. (SS)

NMT 111 Principles of Nuclear Medicine I 2 0 2

An introductory course in clinical nuclear medicine. The basic principles of the major *in-vivo* studies and major clinical nuclear medicine procedures are introduced. Prerequisite: NMT 104. (F)

NMT 116 Nuclear Physics 2 0 2

An introduction to the basic concepts of atomic and nuclear radiation physics. Nuclear decay schemes and concepts of radioactive decay are discussed, followed by a thorough discussion on the interactions of radiation with matter. Prerequisite: NMT 104. (F)

NMT 117 Health Physics 1 0 1

An introduction to radiation safety techniques for reducing exposure to physicians, technologists, and patients. Atomic Energy Commission and state regulations and monitoring methods for nuclear medicine departments are emphasized. Prerequisite: NMT 111. (W)

NMT 129 Practicum I 0 12 4

A program of directed clinical learning experiences in special areas of the nuclear medicine laboratory. Radionuclide generators, radiation safety, and management and administration of nuclear medicine department are presented in lecture series. Prerequisite: NMT 103. (SS)

NMT 221 Principles of Nuclear Medicine II 2 0 2

A study of the principles and applications of radionuclide studies of the gastrointestinal and cardiopulmonary systems. Prerequisite: NMT 111. (W)

NMT 223 Radiopharmaceuticals I 2 0 2

An introduction to radiopharmacy functions, production of radionuclides, quality control of radiopharmaceuticals, and radiopharmacy mathematics. Prerequisite: NMT 111. (W)

NMT 230 Nuclear Medicine Instrumentation I 3 2 4

A study of practical electronic design of radiation detection instruments and circuit construction. Use of such instruments as the Geiger-Muller counter, ionization chambers, proportional counters, and radiation monitoring devices are discussed. Statistics related to nuclear counting are introduced. Prerequisite: NMT 111. (W)

NMT 233 Radiopharmaceuticals II **2 0 2**

A study of radiopharmaceuticals used in nuclear medicine departments on a routine basis. Radiopharmaceuticals of historical and research interest are emphasized. Prerequisite: NMT 223. (S)

NMT 240 Nuclear Medicine Instrumentation II **3 2 4**

A study in detail of the use of well counter, scanners, cameras, and single channel and multichannel analyzers as related to clinical nuclear medicine. Emphasis is placed on Nal (TI) detectors, GeLi detectors, amplifiers, spectrometers, ratemeter, and scales. Prerequisite: NMT 230. (S)

NMT 241 Principles of Nuclear Medicine III **2 0 2**

A detailed study of principles and applications of radionuclide studies of the endocrine and central nervous systems. Prerequisite: NMT 221. (S)

NMT 251 Principles of Nuclear Medicine IV **2 0 2**

A detailed theoretical consideration of standard *in-vivo* laboratory tests and radionuclide studies of the skeletal and urinary systems. Prerequisite: NMT 240. (SS)

NMT 255 Introduction to Radioimmunoassay **1 2 2**

A review of the basic units of measurement with emphasis on the metric system. The organization of living matter from the chemical view is discussed. Emphasis is placed on protein structure and competitive protein binding analysis. Prerequisite: NMT 104. (F)

NMT 268 Open Lab Practicum I **0 6 2**

A clinical experience as conducted under evening and weekend emergency conditions. Prerequisite: NMT 104. (F)

NMT 269 Practicum II **0 24 8**

A course featuring practical experience in a clinical setting with emphasis on scanning. Radiation protection practices and routine quality control of the instruments is observed and used. Prerequisite: NMT 129. (F)

NMT 273 Open Lab Practicum II **0 6 2**

A clinical experience conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 268. (W)

NMT 274 Practicum III **0 24 8**

A practical experience in a clinical setting with emphasis on the more advanced applications of nuclear medicine procedures. Preparation and use of radiopharmaceuticals and preparation of the patient for such studies as bone and 67GA are included. Prerequisite: NMT 269. (W)

NMT 278 Open Lab Practicum III **0 6 2**

A clinical experience conducted under evening and weekend emergency situations with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 268. (S)

NMT 279 Practicum IV **0 24 8**

A practical experience in a clinical setting with emphasis on *in-vitro* procedures and therapeutic use of radionuclides. The course also relates all theory presented during the first three quarters of practicum. Prerequisite: NMT 274. (S)

NMT 283 Open Lab Practicum IV 0 6 2

A clinical experience in NMT 284 as conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 278. (SS)

NMT 284 Practicum V 0 24 8

A more detailed study in the design and use of specific instruments utilized in clinical nuclear medicine. Emphasis is placed on the performance of more advanced studies in *in-vitro* and *in-vivo* procedures employing radioisotopes and practical therapeutic use of radionuclides. Prerequisite: NMT 279. (SS)

NMT 289 Radiobiology 2 0 2

A course in which the fundamentals of radiobiology, a system's sensitivity to radiation (normal and neoplastic), radiation pathology, and the biological effects of radiation are stressed. Emphasis is placed upon the effects of radiation and the effects of radiation absorption on tissue and tissue recovery rate. Prerequisite: NMT 221. (S)

NMT 290 Nuclear Medicine Technology Seminar 2 0 2

A review of any specific topics of nuclear medicine technology of special interest to students. Papers on such topics are presented by guest speakers. Prerequisite: NMT 241. (SS)

NURSING — ASSOCIATE DEGREE

NUR 101 Fundamentals of Nursing 6 6 9

A course designed to provide a foundation for all subsequent courses in nursing. Students are provided with opportunities to learn the principles and techniques which are basic to the effective and safe nursing care in meeting the needs common to all patients. Emphasis is placed on the patients's environment, hygienic needs, communications skills, observational skills, planning nursing care, recording, medical and surgical asepsis, and supplementary nursing functions. A variety of approaches are utilized for the development of the basic techniques and skills necessary to meet the basic needs of man. (F)

NUR 102 Nutrition 3 0 3

A practical study of nutrients, how they are used by the body, and sources and types of food necessary for the balanced diet in development, with ethnic variations. Physiological processes of digestion, absorption, and metabolism are discussed. An introduction to the most commonly used hospital diets is included. (F)

NUR 103 Pharmacology 3 0 3

A presentation of facts concerning sources, effects, legalities, and usage of therapeutic agents. Conversion between systems, prescriptions of medications, drug classifications, and nursing implications are covered. Emphasis is placed on the nurse's responsibility in relation to drug administration. Prepares the student for the process of administering and computing dosages of therapeutic agents. Practice opportunities are available in both classroom and clinical sessions. Prerequisite: basic math. (W)

NUR 104 Maternal-Infant Health I 4 0 4

A course designed to provide the student with opportunities to acquire knowledge and understanding needed to render safe and effective nursing care to the maternity patient, the newborn infant, and the infant's family. Prerequisite: NUR 101. Corequisite: NUR 105. (W)

NUR 105 Maternal-Infant Health I Lab **0 6 2**

A series of objective-centered sessions using selected patients in the obstetrical units of area hospitals to develop skills needed to apply the knowledge learned in NUR 104. Experiences in selected clinics are planned to stress the scope of maternal-infant health care. Prerequisite: NUR 101. Corequisite: NUR 104. (W)

NUR 106 Child Health Nursing I **4 0 4**

A course providing the student with opportunities to acquire the knowledge and understanding needed to render safe and effective nursing care to the child from infancy through adolescence and to his/her family. Prerequisite: NUR 101. Corequisite: NUR 107. (W)

NUR 107 Child Health Nursing I Lab **0 6 2**

A series of objective-centered sessions using selected patients in area hospitals to develop the skills needed to apply knowledge learned in NUR 106. Experiences in selected clinics are planned to stress the scope of child health care. Prerequisite: NUR 101. Corequisite: NUR 106. (W)

NUR 108 Medical-Surgical I **8 0 8**

A course providing beginning knowledge of the nursing care of patients with common problems caused by illness. Symptoms of illness, classification of diseases, preoperative and postoperative care, long-term illness, and rehabilitation are included. Nursing needs of the patient with disorders and/or diseases of the cardiovascular and respiratory systems are stressed. Principles related to the care of patients with long-term illness, in geriatric situations, during rehabilitation nursing, as well as the patient with cancer and the dying patient are introduced. Prerequisite: NUR 101 through NUR 107. Corequisite: NUR 109. (S)

NUR 109 Medical-Surgical I Lab **0 15 5**

A series of objective-centered learning experiences using selected patients in the medical-surgical units in area hospitals to develop the skills needed to demonstrate the knowledge learned in NUR 108. The emergency room, operating room, and recovery room are utilized. Agencies and intermediate and extended care facilities may be utilized for observation experiences. Prerequisite: NUR 101 through NUR 107. Corequisite: NUR 108. (S)

NUR 110 Medical-Surgical II **6 0 6**

The study of diseases/disorders of body systems. Covers etiology, diagnosis, treatment, and nursing care during these conditions of illness. Communicable diseases of the adult as well as disaster and emergency nursing are included. Patient teaching and rehabilitation are stressed as intrinsic aspects of the nursing process. Prerequisite: NUR 101 through NUR 109. Corequisite: NUR 111. (SS)

NUR 111 Medical-Surgical II Lab **0 18 6**

A series of objective-centered learning experiences using selected patients in the medical-surgical units of area hospitals to develop the skills needed to demonstrate knowledge learned in NUR 110. Functioning as a member of the nursing team and the utilization of all health team members to promote and achieve total patient care are important aspects of this experience. Prerequisite: NUR 101 through

NUR 109. Corequisite: NUR 110. (SS)

NUR 112 Nursing Seminar I 3 0 3

A study of the legal and ethical responsibilities, professional organizations, and job opportunities available to the licensed practical nurse. The North Carolina Nurse Practice Act is emphasized. The importance of an availability of continued education is stressed. Applications for writing the State Board of Nursing Licensing Examination for Practical Nurses are completed and submitted at the end of this course. The seminar method of instruction is utilized and opportunity made for discussion of special interests of the students. Prerequisite: NUR 101 through NUR 109. (SS)

NUR 200 Psychiatric Nursing 6 0 6

A study of the nurse's role in functioning therapeutically and in individual interpersonal relationships with the mentally ill patient who requires hospitalization at some point during the patient's illness. Emphasis is placed on cognizance and utilization of self as a therapeutic agent, identification of personality, and behavior deviations. Synthesis and integration of information acquired in all other courses is expected throughout the course. Prerequisite: all NUR 100 courses, BIO 135. Corequisite: NUR 201. (SS/W)

NUR 201 Psychiatric Nursing Lab 0 9 3

A series of objective-centered learning experiences using selected patients in psychiatric units of area hospitals to develop the skills needed to demonstrate knowledge learned in NUR 200. Synthesis and integration of skills acquired in all other courses is expected. Prerequisite: all NUR 100 courses, BIO 135. Corequisite: NUR 200. (SS/W)

NUR 202 Maternal-Infant Health II 4 0 4

A study of nursing intervention during the maternal cycle including intensive care of premature infants. Emphasis is placed on family-centered care and health teaching, recognition of deviations from the normal, and planning nursing care for individuals or groups. Utilization of cognitive, judgmental, and manipulation skills, drawing from knowledge acquired through related courses is stressed in assessing, implementing, and evaluating via the nursing process. Prerequisite: NUR 200, NUR 201. Corequisite: NUR 203. (F/S)

NUR 203 Maternal-Infant Health II Lab 0 6 2

A series of objective-centered learning experiences using selected patients in the maternity units of area hospitals and other health agencies to develop the skills needed to demonstrate the knowledge learned in NUR 202. Prerequisite: NUR 200, NUR 201. Corequisite: NUR 202. (F/S)

NUR 204 Child Health Nursing II 4 0 4

A study of nursing intervention during childhood from infancy through adolesence. Emphasis is placed on family-centered care and health teaching, recognition of deviations from the normal, and planning nursing care for individuals or groups. Utilization of cognitive, judgmental, and manipulation skills, drawing from knowledge acquired through related courses is stressed in assessing, implementing, and evaluating via the nursing process. Prerequisite: NUR 200, NUR 201. Corequisite: NUR 205. (F/S)

NUR 205 Child Health Nursing II Lab **0 6 2**

A comprehensive study of biological, social, and emotional components of frequently occurring illness. Orientation is based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems is stressed. Use of pediatrics units of area hospitals and other health agencies is planned to develop the skills needed to demonstrate the knowledge learned in NUR 204. Prerequisite: NUR 200, NUR 201. Corequisite: NUR 204. (F/S)

NUR 206 Medical-Surgical III **6 0 6**

A comprehensive study of biological, social, and emotional components of frequently occurring illness. Orientation is based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems is stressed. Prerequisite: NUR 200 through NUR 205. Corequisite: NUR 207. (W/SS)

NUR 207 Medical-Surgical III Lab **0 15 5**

A comprehensive study of biological, social, and emotional components of frequently occurring illiness. Orientation will be based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems is stressed. The medical-surgical units of area hospitals and other health agencies are planned to develop the skills needed to demonstrate the knowledge learned in NUR 206. Opportunity is provided for using previously acquired knowledge in planning and implementing nursing care for groups or individuals. Perequisite: NUR 200 through NUR 205. Corequisite: NUR 206. (W/SS)

NUR 208 Medical-Surgical IV **6 0 6**

A comprehensive study of biological, social, and emotional components of frequently occurring illnesses with emphasis upon the rehabilitative and adaptive processes. Prerequisite: NUR 200 through NUR 207. Corequisite: NUR 209. (S/F)

NUR 209 Medical-Surgical IV Lab **0 18 6**

A series of selected learning experiences to assist the student in the development of the ability to formulate and utilize previously and concurrently acquired skills so that comprehensive planning and competent application of cognitive, affective, and manipulative skills are employed in the care of the patient(s) in all age groups and in a variety of situations. The student is given the opportunity to plan, direct, and evaluate total patient care for groups and/or individuals using the instructor as the principle resource. Prerequisite: NUR 200 through NUR 207. Corequisite: NUR 208. (S/F)

NUR 210 Seminar II **3 0 3**

A study of the role and responsibilities of the registered nurse. The leadership role and various methods of managing patient care are emphasized. Current trends, transitional concerns, employment opportunities, and continuing education are stressed. The seminar approach is utilized to meet the individual needs of the students. Prerequisite: NUR 200 through NUR 207. (S/F)

PHILOSOPHY

PHI 201 Introduction to Philosophy **3 0 3**

A study of various alternative philosophies concerning the nature of truth, ethics, happiness, society, and religion. Emphasis is placed on the insights of the great philosophers as well as assisting the student in developing a personal philosophy of living. (F/W/S/SS)

PHYSICAL EDUCATION

PED 101 Physical Activities for Children **0 2 1**

A recreation course based on games for children beginning with the preschool child.

PED 102 Physical Activities for Children **0 2 1**

A recreation course based on games for children beginning with the preschool child.

PED 103 Physical Activities for Children **0 2 1**

A recreation course based on games for children beginning with the preschool child. Emphasis is placed on direct leadership experience.

PED 110 Archery **0 2 1**

A course designed to teach the student the fundamentals, skills, history, and rules, with special emphasis on safety practices, etiquette, and value which carry over into a useful leisure time activity. (F)

PED 111 Badminton **0 2 1**

A course which deals with beginning skill in the basic strokes and a general knowledge of the history, rules, and strategy of the game. (W)

PED 112 Bowling **0 2 1**

A study of the fundamentals of ball selection, grips, stance, and delivery along with rules, history, and scoring. Special emphasis is placed on spot bowling. (W)

PED 113 Golf **0 2 1**

A course designed for teaching the grips, stance, and use of various clubs, along with history and etiquette of play. (F/S)

PED 114 Physical Fitness **0 2 1**

An introduction to physical activity with emphasis being placed on the cardiovascular system, strength, and efficiency in executing basic skills which may arise in play and daily living. (F/W/S/SS)

PED 115 Tennis **0 2 1**

An elementary course in the history, rules, and regulations. Emphasis is placed on the fundamentals of the game with prime consideration given to strokes and footwork. (F/S/SS)

PED 116 Beginning Skiing **0 2 1**

An elementary course for the non-skier designed to get the individual to the point of skiing proficiently. (W)

PED 117 Beginning Swimming **0 2 1**

A course designed for the non-swimmer. Includes basic strokes and water safety based upon American Red Cross programs of instruction. (S/SS)

PED 119 Tumbling and Gymnastics **0 2 1**

A course dealing with the beginning skills of tumbling, stunts, and gymnastics. Special emphasis is placed on the safety of these activities and correct body balance and form. (W)

PED 120 Handball **0 2 1**

A course designed to teach the fundamental skills, rules, history, and strategy of handball with emphasis placed on practice and skill development. (D)

PED 125 Basic Backpacking and Climbing **0 2 1**

A course designed to introduce the student to the sport of backpacking and rock climbing. (D)

PED 130 Basketball **0 2 1**

A course designed to study the rules, strategy, and history as well as the fundamental skills of beginning basketball. (W)

PED 132 Soccer **0 2 1**

A course covering the fundamental skills, history, rules, and strategy with emphasis placed on practice and execution of activity skills. (F)

PED 133 Softball **0 2 1**

The study of history, rules, skills, and strategy with emphasis on defensive play by positions. (S)

PED 134 Volleyball **0 2 1**

A course designed to include the fundamental skills, history, rules, and strategy of the game with special emphasis on carry-over value of activity. (W)

PED 135 Canoeing **0 2 1**

A course including lectures and laboratory practices in the basic skills of lake and river canoeing. All basic strokes and fundamentals of canoe safety and rescue are emphasized. It is recommended that students be able to swim before registering for this course. (F/S/SS)

PED 140 Ice Skating **0 2 1**

A course designed to develop and improve fundamental skills and techniques in ice skating. (W)

PED 141 Horseback Riding **0 2 1**

A course designed to acquaint students with the western style of riding, equipment, handling of horses, the aids, mounting, trail riding, and care of the horse. Emphasis is placed on the development of equestrian skills, safety, coordinated horse-rider balance, and proper care of horses. (F/S/SS)

PED 142 Advanced Horseback Riding **0 2 1**

A course designed to give the novice rider a more intense experience riding horses in a variety of specialized situations and to further acquaint the student with horses' behavior, equipment, the aids, and care of the horse. Emphasis is placed on the development of skills in jumping, rodeo games, and trail riding. Prerequisite: PED 141 or demonstrated skill. (S/SS)

PED 151 Modern Dance **0 2 1**

A course designed to develop and improve fundamental skills in dance movements and techniques and to encourage appreciation of dance as an art form and medium of education. (W)

PED 152 Folk and Square Dance **0 2 1**

A course in the development and successful performance of dance skills in regional American folk dances. (W)

PED 154 Beginning Social Dance 0 2 1

A course designed to provide students with the basic fundamentals of popular dancing. Provides the students with information which will help them enhance their social life and give them an appreciation for dancing. (F/W/S/SS)

PED 155 Advanced Social Dance 0 2 1

A course designed to provide students with advanced fundamentals of popular dancing. All instruction is directed toward students' abilities to perform the movements with expertise. Stress is put on rhythm, appearance, and routine sequence. Prerequisite: PED 154 or approval of instructor. (F/W/S/SS)

PED 160 Individual Activity 0 2 1

A course providing specialized activities approved by the physical education and recreation department for a particular student. (D)

PED 180 Personal and Community Health 3 0 3

A course designed to develop an awareness of the personal, community, and worldwide importance of health. Special emphasis is placed on the physical, mental, and emotional aspects of the human body. Health problems, their causes and prevention are also stressed. This course may not be used as a substitute for required P.E. activity courses. (D)

PED 185 First Aid and Safety 3 0 3

A course presenting the skills, techniques, and knowledge needed to have a safe environment. Adequate class time is reserved for practical demonstrations of first aid and safety. Students are provided the opportunity to obtain the standard first aid certificate. This course may not be used as a substitute for required P.E. activity courses. (W)

PED 200 Intermediate Tennis 0 2 1

A course designed to develop a higher level of neuromuscular skill, coordination, balance, endurance, and tennis strategy. Prerequisite: student must have passed beginning tennis (PED 115) with a grade of "C" or better or have the approval of the instructor.

PED 201 Introduction to Physical Education 3 0 3

An introductory course to acquaint the student with the principles and philosophy of physical education. Special emphasis is placed on the sociological, physiological, and psychological objectives of physical education and the professional preparation essential to become a physical educator. (F)

PED 212 Physiology of Muscular Exercise 3 2 4

The application of physiological principles to muscular and organic action of the human in sports and action. This course may not be used as a substitute for required P.E. activity courses. Prerequisite: BIO 108, BIO 109. (F)

PED 213 Advanced Golf 0 2 1

A course designed to further develop the skills learned in beginning golf. The majority of class time is spent at a local golf course. Prerequisite: PED 113 or approval of instructor. (F/S/SS)

PED 215 Advanced Tennis 0 2 1

A course designed to develop the skills learned in PED 115 with special emphasis on singles and doubles strategy and tournament play within the class. Prerequisite: PED 115 or approval of instructor. (F/S/SS)

PED 216 Advanced Skiing 0 2 1

A course designed for advanced students to perfect skills in the following areas: slalom, down-hill racing, turns, and jumps, with emphasis on control and safety. Prerequisite: PED 116 or approval of instructor. (W)

PHOTOGRAPHY

PHO 101 Basic Photography 4 3 5

A study of fundamental photographic equipment and materials. Both still and movie camera principles are studied in relation to the field of design and visual communications. (F/W/S/SS)

PHO 201 Advanced Photography 2 6 4

A course in advanced photographic techniques and materials. Participation in studio lighting, copying, and photography of various objects of artificial light permit a wider use of photography in visual communications. Prerequisite: PHO 101 or demonstrated skill. (D)

PHYSICAL SCIENCE

PHS 101 Man and His Physical Environment 3 2 4

An integrated perspective of the physical sciences with a study of selected topics such as systems of measurement, the expanding universe, structure of earth, kinetic molecular theory of matter, energy (types, transformations, utilization), properties of elements and compounds, and structure and utilization of atoms. Covers the role of science in the development of civilization. (F/SS)

PHS 102 Man and His Physical Environment 3 2 4

A continuation of PHS 101. Prerequisite: PHS 101. (W/SS)

PHS 103 Man and His Physical Environment 3 2 4

A continuation of PHS 102. Prerequisite: PHS 102. (S/SS)

PHYSICS

PHY 101 Physics: Properties of Matter 3 2 4

A study of the major areas of work, energy, and power. Instruction includes such topics as statics, forces, center of gravity, and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas. (F)

PHY 102 Physics: Work, Energy, Power 3 2 4

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws, and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course. Prerequisite: PHY 101. (W)

PHY 103 Physics: Electricity 3 2 4

A study of the basic theories of electricity, types of electricity, methods of production, and transmission and transforming of electricity. Electron theory, electricity by friction, electricity by chemical action, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage, and transformers are major topics in the course. Prerequisite: PHY 102, T-MAT 102. (S)

PHY 106 Applied Mechanics 5 0 5

A study of the concepts and principles of statics and dynamics. Includes parallel concurrent and noncurrent force systems in coplanar and noncoplanar situations. Also covers concepts of centroids and center of gravity, moments of inertia, fundamentals of kinetics, and kinematics of velocity and motion. Prerequisite: T-MAT 103, T-PHY 102. (S)

PHY 107 Physics 3 2 4

A course emphasizing the fundamentals of electrical and radiation physics and the basic principles underlying the operation of X-ray equipment and auxiliary devices. Prerequisite: MAT 101, MAT 111, or T-MAT 105. (W)

PHY 108 Physics 3 2 4

A course emphasizing the fundamentals of electrical and radiation physics and basic principles underlying the operation of X-ray equipment and auxiliary devices. Prerequisite: PHY 107. (S)

PHY 120 Energy: Sources, Needs, Hazards 3 2 4

A course designed to increase the student's awareness of energy, both as a physical concept and as an economic issue. Covers topics including the properties, sources, and uses of energy; the economics of energy production; and the hazards associated with energy consumption. Students also learn how to perform energy conversion and cost calculations. Prerequisite: MAT 091. (D)

PHY 211 General Physics I 3 2 4

A study of classical and modern physics in which the analytic approach is employed and calculus is used as needed. Mechanics, sound, and heat are included. (F)

PHY 212 General Physics II 3 2 4

A continuation of PHY 211 including magnetism and electricity. Prerequisite: PHY 211. (W)

PHY 213 General Physics III 3 2 4

A continuation of PHY 212 including light, optics, and modern physics. Prerequisite: PHY 212. (S)

PHY 1101 Applied Science 2 4 4

An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, liquids and gases; and basic electrical principles. Prerequisite: MAT 1101. (W)

PHY 1101A Auomotive Applied Science 2 2 3

An introduction to physical principles and their applications in the automobile industry. Topics include measurement; properties of solids, liquids, and gases; and basic electrical principles. Prerequisite: MAT 1120. (W)

PHY 1101W Applied Science 1 3 2

An introduction to the physical principles and their application to industry. Topics to be studied include measurement, properties of materials, mechanics, and basic electricity. Prerequisite: MAT 1101W. (S)

PHY 1102 Applied Science 2 4 4

The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101. (S)

PHY 1102A Automotive Applied Science 2 2 3

The second of two courses of applied physical principles. Topics include heat and thermometry, force, motion, work, energy, power, and simple machines. Prerequisite: PHY 1101A. (S)

PLASTICS

PLA 101 Introduction to Plastics 2 3 3

A course providing the student with an overview of the plastics industry. Includes opportunities to learn the properties of plastics, the range of user application, the jobs done by people in the fabrication of plastics, and the commercial production processes. Some laboratory experience is provided to give a basic understanding of how plastics are fabricated. (F)

PLA 105 Plastic Forming I 2 6 4

A course providing experience in thermoforming, injection molding, and compression molding of plastics as is done commercially. The student learns how the industrial processes work. Actual experience on industrial equipment is provided in the laboratory. Safety is stressed. Prerequisite: PLA 101 or approval of instructor. (W)

PLA 106 Materials Compounding 3 2 4

A course providing the student with a hands-on experience in materials compounding. Raw materials are compounded to produce a final product. Opportunities to learn about polymers and their reactions to certain modifiers and/or additives are included. The student acquires knowledge of various types of plastics such as polystyrenes, polyethylenes, P.V.C., and others. (S)

PLA 107 Plastic Forming II 6 6 8

A study of injection molding machines and molding techniques as well as safety. Material preparation and feeding, cycling, ejection, and secondary processes are discussed, along with machine capacity and color blending. Extruder construction and operation to include the flow of plastics in extrusion, screw design, and performance are discussed in the second phase. Blow molding focuses on the "why" and "how" of blow molding and thermoforming. Current practice in regards to methods, machine design, and mold design is reviewed. Pour casting is introduced. The use of latex and rubber molds are viewed for their advantages and speed of production in manufacturing today. Emphasis of this course is on the effect of processing variables on the finished part, quality, and cost. Prerequisite: PLA 105 or approval of instructor. (S)

PLA 107-1 (Part-time) 3 3 4

PLA 107-2 (Part-time) 3 3 4

PLA 117 Plastic Forming III 3 6 5

A continuation of PLA 107. The commercial processes of extrusion, blow molding, casting, laminating, calendering, and expansion of formable bead work are taught. Experience with all of these processes except calendering is provided in the laboratory. Emphasis on good housekeeping is stressed. Prerequisite: PLA 107 or approval of instructor. (SS)

PLA 118 Fabricating, Lamination, Finishing 3 0 3

A course covering the advantages and techniques of selecting methods of fabricating and laminating plastics, including layup, sprayup, preforming, filling, and filament winding. Material selection, production techniques, and selected applications are discussed. Plastic finishing is introduced. The uses of paints and coatings are discussed as well as machine finishing of the final parts. (SS)

PLA 135 Physical Properties of Plastics 2 3 3

A course in measuring the physical properties of plastics such as tensile strength, modulus of elasticity, and impact resistance in a testing laboratory. The effects of temperatures, exposure to light, and chemicals on the physical properties are explored. Tests also compare physical and chemical properties of plastics with other materials. Work safety is a part of this course. Prerequisite: PLA 106. (SS)

PLA 218 Plastic Material and Applications 3 3 4

A study of classes of materials and their physical and chemical properties. Includes effects on materials of environmental factors and product areas of applications. Covers appliances, pharmaceutical/medical, packaging, automotive, aviation and marine toys, housewares, textiles, industrials, and construction. Prerequisite: PLA 215. (D)

PLA 219 Plastic Mold Design I 1 3 2

A study of metals, finishes, cavity-forming methods, mold bases, temperature control, mold layout, and runner and gate systems. Relationships with molding and molding finishing and end-use requirements are stressed. Prerequisite: MEC 210. (F)

PLA 220 Mold Design II 2 6 4

A course planned to give the student exposure to good and poor practices in making molds for injection moldings, blow molding, thermoforming, extrusion, and compression molding. It provides knowledge of materials used to make molds and some laboratory experience in making molds with plastic resins. Prerequisite: PLA 219. (W)

PLA 225 Practicum 0 6 2

A course providing supervised work experience alternating with the educational program on a schedule satisfactory to employers, the institution, and the student. This period of time enables the student to perform a planned variety of activities required of his/her specialty. The work periods are carefully planned and closely supervised by the employer and the institution to provide experiences and responsibilities commensurate with the capabilities of the student. An official agreement among the institution, the student, and the employer identify the sequence of activities to be performed by the student and define the supervisory responsibilities for the educational element of work. Prerequisite: student registered in a two-year occupational program in the institution. (S/W)

PLA 226 Practicum 0 9 3

A continuation of PLA 225.

PLA 227 Practicum 0 9 3

A continuation of PLA 226.

POLITICAL SCIENCE

POL 201 American Federal Government **3 0 3**

A study of the structure and function of the national government with emphasis on current political affairs. (F/W/S)

POL 203 Government — State and Local **3 0 3**

A study of state and local government, state-federal interrelationships, and the functions and prerogatives of the branches. Includes problems of administration, legal procedures, law enforcement, police power, taxation, revenues, and appropriations. Special attention is given to North Carolina. (W/S)

PSYCHOLOGY

PSY 101 Personal Development **1 2 2**

A course dealing with a person's socialization process and relationship to others. Includes an examination of one's personality development and occupational/career interests. (D)

PSY 201 General Psychology **3 0 3**

A survey of psychology as the science of human behavior, to include theories and application of human development, learning, physiological psychology, sensation and perception, individual differences, and others. (F/W/S/SS)

PSY 201a General Psychology Lab **0 2 1**

A lab experience intended to parallel the subject matter of PSY 201 in conjunction with which it is taken. Meets two hours weekly. (D)

PSY 202 General Psychology **3 0 3**

A continuation and expansion of PSY 201, to include behavior in groups, emotion and motivation, behavior under stress, behavior disorder, and personality and psychotherapy. Prerequisite: PSY 201. (F/W/S/SS)

PSY 202a General Psychology Lab **0 2 1**

A lab experience intended to parallel the subject matter of PSY 202 in conjunction with which it is taken. Meets two hours weekly. (D)

PSY 203 Psychology of Adolescence **3 0 3**

An overview of social-psychological conditions of adolescence in the Western world. General areas covered are description of adolescence, formative influences, behavior settings, and problem areas. (W/S)

PSY 204 Child Behavior **3 0 3**

An application of social learning theory to child behavior with emphasis on the acquisition, retention, and extinction of behavior through preadolescence. (S)

PSY 205 Personality and Adjustment **3 0 3**

The study of the whole person which permits the learner to review the varied psycho-social factors that influence personality development and maintenance while, at the same time, being given the opportunity to experience personal growth and increased awareness of his/her personal-social life. (D)

PSY 206 Interpersonal Skills **3 0 3**

A course providing an opportunity for the learner to acquire self-management skills and to increase his/her level of competence in interactions with others. Specific areas covered are communications, conflicts, cooperation, use of social power, and the application of social learning principles. (F/W/S/SS)

PSY 209 Human Sexual Behavior 3 0 3

A study of physiological, social, and interpersonal aspects of sex and sexual behavior, to include the human sexual system, the sex act, attitudes and behavior, and love and intimancy. (D)

PSY 210 Human Growth and Development 3 0 3

A study of the interaction of maturational and environmental factors in the development of the individual from conception to maturity. (W)

PSY 213 Abnormal Psychology 3 0 3

An introduction to behavior pathology — description, dynamics, and modifications of abnormal behaviors, including neuroses, psychoses, and character disorders. Psychosomatic reactions are included as well as the behavior modification approaches to each disorder. Mental health maintenance is stressed.

PSY 215 Introduction to Exceptional Individuals 3 0 3

A course designed to introduce the student to the exceptional or abnormal person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. To aid the student's understanding, scheduled trips to institutions for the retarded, mentally ill, deaf, and physically handicapped are an integral part of the course. Prerequisite: PSY 201. (W)

RADIOLOGY

RDT 101 Introduction to Radiologic Technology 2 0 2

A course presenting an overall view of radiologic technology and the part radiology plays in medicine. Students become acquainted with the general structure of applied medicine. Includes good ethical principles and the responsibilities of an allied health professional. (F)

RDT 102 Basic Patient Care 3 3 4

A course designed to present the student with the basic principles of patient care with particular emphasis on those procedures required in the radiology department. (F)

RDT 103 Radiation Protection I 1 0 1

A course presenting the student with the basic principles of radiation protection as they apply to the patient, fellow workers, and the technologist. (F)

RDT 110 Introduction to Radiographic Technique 2 1 2

A very basic view of the exposure techniques used in radiographic procedures using the energized lab for demonstration. Also introduces radiographic accessories along with basic exposure computations. Prerequisites: RDT 101, RDT 103. (F)

RDT 111 Radiographic Procedures I — Extremities 5 10 8

A study in terminology and basic principles of radiographic positioning. Covers the routine views for positioning the chest, abdomen, upper extremity, shoulder girdle, lower extremity, hips, and pelvis. The student gains experience working with radiographic phantoms in the energized lab. Prerequisite: RDT 102. (F)

RDT 112 Radiographic Evaluation 2 0 2

A basic presentation of the controlling and influencing factors which affect each of the radiographic qualities. Includes learning to evaluate radiographic film characteristics. Prerequisite: RDT 110. (W)

RDT 113 Radiographic Procedures II — Skull and Spine 2 1 2

A study in proper positioning of skull, sella turcica, petrous pyramids, coccyx, sacrum, the entire spine, the bony thorax, and soft tissue of the chest. Includes both routine and special views associated with each anatomical part. Prerequisite: RDT 111. (W)

RDT 114 Clinical Techniques I 0 18 6

A course providing practical experience in the hospital, including processing of radiographs, patient care, ethical situations, and basic positioning of the upper and lower extremity, chest, abdomen, shoulder girdle, and pelvic girdle. Principles of radiographic exposure are applied by measuring each patient and utilizing a technique chart in order to set factors on the X-ray machine. Special emphasis is given to fluoroscopic procedures. Prerequisite: RDT 110, RDT 111. (W)

RDT 115 Radiographic Processing 2 0 2

A course designed to present the student with the basic principles of processing with particular emphasis on automatic processing. Includes the use of intensifying screens. Prerequisite: RDT 112. (S)

RDT 116 Radiographic Procedures III — Trauma and GI Procedures 2 1 2

A presentation of positioning for the immobile trauma patient, along with the procedures used to visualize the gastrointestinal tract. Prerequisite: RDT 113. (S)

RDT 117 Clinical Techniques II 0 24 8

A course providing practical experience to improve skills in radiographic exposure, patient care contact, and routine positioning of the skull and entire spine. Special emphasis is placed on portable and surgical radiography. Prerequisite: RDT 112, RDT 113. (S)

RDT 118 Radiographic Procedures IV — Angiography 2 1 2

A course designed to present the student with information on special procedures and the special equipment and skills needed to perform them. Prerequisite: RDT 116. (SS)

RDT 119 Clinical Techniques III 0 24 8

A course providing practical experience in emergency procedures, including all routine positioning; fluoroscopic, mobile, and surgical radiography; and exposure factors. Special emphasis is placed on patient handling in all phases of radiography. Prerequisite: RDT 115, RDT 166. (SS)

RDT 120 Imaging Modalities 3 0 3

An introduction to the theory and application of imaging modalities other than radiography. (SS)

RDT 210 Principles of Exposure I 2 0 2

The first of two courses designed to develop a thorough working knowledge of the manipulation of exposure factors. Covers the basic principles needed to construct technique charts for all situations and kilovoltage ranges. Prerequisite: RDT 115. (F)

RDT 211 Clinical Techniques IV 0 24 8

A course providing practical experience in the hospital and involving more advanced work in special procedures, radiation therapy, and nuclear medicine. A continuation of practice in all routine positioning, good darkroom techniques, proper radiographic techniques, radiation protection, and good patient care. Prerequisite: RDT 119. (F)

RDT 212 Radiographic Procedures V — Genitourinary 2 1 2

A course focusing on radiography of the genitorurinary system. Includes instruction on preparation of radiographic room, the patient, and the contrast media used in the procedures. Prerequisite: RDT 118. (F)

RDT 213 Radiographic Equipment and Accessories 2 0 2

A course designed to correlate radiographic equipment with the physics of radiation. Presents an indepth study of radiographic tubes and generators. Prerequisite: RDT 210. (W)

RDT 214 Clinical Techniques V 0 24 8

A course providing practical experiences in the hospital to include routine positioning of all body parts. Special emphasis is placed on radiography of the total digestive tract, urinary tract, reproductive, and tomographic examinations. Prerequisite: RDT 211. (W)

RDT 215 Radiographic Procedures IV — Pediatric and Dental 2 1 2

A course emphasizing pediatric and dental radiography and the principles of tomography. Also covers radiation protection as it applies to these areas. Prerequisite: RDT 212. (W)

RDT 216 Principles of Exposure II 2 0 2

The second of two courses designed to develop a complete and thorough working knowledge of the manipulation of exposure factors through the completion of problems and experiments. Prerequisite: RDT 213. (S)

RDT 217 Clinical Techniques VI 0 24 8

A course providing practical experience in the hospital and involving all radiographic positioning, good patient care, radiation protection, and manipulation of radiographic technical factors. Special emphasis is on mammography and pediatric and dental radiography. Prerequisite: RDT 216. (S)

RDT 218 Radiographic Procedures VII — Special Views of the Whole Skeleton 2 1 2

A course emphasizing special radiographic positioning of the entire skeleton.

RDT 219 Radiation Protection II 2 0 2

An indepth study of radiation protection as it affects all modalities. Prerequisites: RDT 103, RDT 120, RDT 217. (SS)

RDT 220 Quality Control Seminar 2 0 2

A course designed to help the student recognize the difference between diagnostic and poor quality radiographs and learn how to maintain quality control. Prerequisite: RDT 216. (SS)

RDT 221 Clinical Techniques VII 0 24 8

A total overview of all positioning, exposure factors, and other related materials covered in the previous seven quarters. Special emphasis is placed on regular instructor-student clinical contact. Offered in the final quarter in the clinical facilities. Prerequisite: RDT 217. (SS)

READING

NOTE: Reading Proficiency Requirements

In the interest of helping students succeed in their chosen curricula, all entering students at Caldwell Community College and Technical Institute are tested for reading proficiency. Students whose scores are unsatisfactory should schedule an appointment for individual diagnostic testing in the reading center. Normally, this testing may be done during each registration period. Any student who does not have the required reading proficiency level for his/her curriculum shall be advised to enroll in the reading course which is closest to his/her independent reading level.

RDG 090 Basic Reading I **1 3 2**

A course designed for students whose independent reading levels range from zero to fourth grade. Basic word recognition, word attack, comprehension, oral reading, and study skills are taught. Completion of this course does not earn credit toward a degree or diploma. Prerequisite: Reading Inventory. (F/W/S/SS)

RDG 091 Basic Reading II **1 3 2**

A course designed for students whose independent reading levels range from fifth to sixth grade. Sight vocabulary, word attack, comprehension, oral reading, and study skills are taught. Completion of this course does not earn credit toward a degree or diploma. Prerequisite: Reading Inventory or RDG 090. (F/W/S/SS)

RDG 092 Basic Reading III **1 3 2**

A course designed for students whose independent reading levels range from seventh to eighth grade. Intermediate vocabulary, word attack, comprehension, and study skills are taught. Beginning techniques for improving reading speed are introduced. Completion of this course earns credit only towards a vocational degree or diploma. Prerequisite: Reading Inventory or RDG 091. (F/W/S/SS)

RDG 093 Developmental Reading I **1 3 2**

A course designed for students whose independent reading levels range from ninth to tenth grade. Vocabulary, word attack, comprehension, reading rate improvement, and study skills are taught. Completion of this course earns credit only towards a vocational degree or diploma. Prerequisite: Reading Inventory or RDG 092. (F/W/S/SS)

RDG 101 Developmental Reading II **1 3 2**

A course designed for students whose independent reading levels are tenth grade or above. Advanced vocabulary, word attack, comprehension, reading rate improvement, and study skills are taught. Prerequisite: Reading Inventory or RDG 093. (F/W/S/SS)

RECREATION

REC 101 Introduction to Recreation Services **5 0 5**

A course introducing the student to the historical and philosophical foundation of recreation and leisure. The basic principles, the definition, and the impact and trends of recreation are presented. Emphasis on the different agencies providing recreational services is included with visitations being scheduled to public, private, industrial, and institutional recreational programs. (F)

REC 102 Recreation and Special Populations 3 0 3

A course designed to introduce the student to the exceptional person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. To aid the students' understanding, scheduled trips to institutions for the retarded, mentally ill, deaf, and physically handicapped are an integral part of this course. (S)

REC 103 Recreation Programming 3 0 3

A study of the underlying principles for effective recreation programming. Includes an overview of the variety of program areas associated with recreation with attention given to the recreation interests and needs of the participants. Major objectives of this course are to provide the student with a basic knowledge to enable him to plan, organize, and provide leadership in program participation and to develop an understanding of the facilities and equipment necessary. This course also emphasizes the adaptation of activities and equipment for special groups. (W)

REC 104 Rehabilitation Services 3 0 3

A course designed to aid the students' understanding of the therapies in a rehabilitation service. Special emphasis is placed on the role of the recreation therapist and how it relates to occupational therapy, music therapy, industrial therapy, physical therapy, inhalation therapy, education therapy, and volunteer service. Considerable time is centered around guest speakers from the different therapies. (F)

REC 105 Areas and Facilities 3 0 3

A course exploring the different types of indoor and outdoor recreational areas and facilities and their use. The principles in planning, the dimensions and standards, maintenance, and operation of areas and facilities such as parks, playgrounds, ball fields, centers, tennis courts, swimming pools, and others are studied. Consideration is given to architectural barriers of areas and facilities needed by the handicapped participant. (W)

REC 106 Camping 5 0 5

A course designed to develop an understanding of the operation of a camping program. Particular course emphasis is placed on camping for the ill and handicapped and the architectural barriers which often exist. Operational concerns, varying from the use of volunteers to the maintenance of grounds, are covered in this course. (S)

REC 121 Special Recreation 3 0 3

A course to develop skill in planning social recreational activities. Party planning, special events, social games, quiet games, trips and picnics, and decorating are emphasized in this course. For practical experience, students have the opportunity to work with different age groups on community projects in social recreation. (W)

REC 202 Recreation Leadership 3 0 3

A course to build basic skills in working with people, an important asset to the recreation leader who daily works with program participants, volunteers, staff, and the public. This course focuses on the types of leadership, parliamentary procedure, role playing, interviewing, training and recruiting volunteers, and human relations. Students have the opportunity to observe community leaders and to evaluate their effectiveness. (W)

REC 203 Water Sports 1 4 3

A course intended to develop an understanding of the values, objectives, and skills involved in a swimming and water sports program. Particular attention is given to swimming and water activities for children, adults, and the handicapped. The organizational and administrative aspects of a swimming program, teaching progressions and methods, and water games are included. The water skills are taught at a local pool. Students are afforded the opportunity to obtain a senior life saving certificate. (S)

REC 205 Outdoor Education 3 0 3

An investigation of the history and significance of the outdoor education movement and an examination of current ideas and practices. Attention is focused on environmental problems, conservation, wildlife, nature, fisheries, and other ecological points of interest. Field trips supplement lectures. (S)

REC 208 Field Work 0 6 2

A course providing for student field assignments in the municipal and hospital recreation settings to begin the fourth quarter of the recreation curriculum. The field placement is designed to give the student practical experience while undertaking academic work. The student works under the direction of a full-time professional. Evaluation reports of the field work are submitted by the student and the supervisor. Prerequisite: two quarters of study in the recreation curriculum is required before any internship is permitted. (F)

REC 209 Field Work 0 9 3

A required nine hours of field placement to be completed during the fifth quarter of the recreation leadership curriculum. This field work is under the supervision of a professional worker in the specific area of interest. (W)

REC 210 Field Work 0 15 5

The sixth quarter of the recreational leadership curriculum is primarily practical work experience in the student's chosen area of interest. Fifteen (15) hours of field work per week are devoted to this placement. This placement is under the direction of a full-time professional. (S)

REC 211 Recreation Seminar 1 0 1

A course to prepare the student to become a professional recreation leader. Special emphasis is given to professional organizations, job applications, personal interviews, personal appearances, and interpersonal relationships. The recreation faculty coordinates this seminar. Prerequisite: completion of 5 successful quarters in the recreation leadership curriculum. (S)

REC 215 Dance 1 4 3

A skill course designed to develop specific talents in the area of recreational dance. Activity sessions stress the different types of dances, the skills involved, and the techniques used in teaching dancing to different age groups. Appropriate dances with adaptations for the different handicapped groups are also stressed. Adequate class time is used for student participation and practice. (F)

RELIGION

REL 201 Introduction to Old Testament **3 0 3**

An examination of history, literature, and religious ideas of the Ancient Near East as reflected in the Old Testament. (F/W)

REL 202 Introduction to New Testament **3 0 3**

A critical examination of the rise and spread of the Christian faith as recorded in the New Testament with special emphasis in the ministries of Jesus and Paul. (W/S)

REL 203 World Religion **3 0 3**

An introduction to the major religions of the world, including Hinduism, Buddhism, Confucianism, Taoism, Judaism, Islam, and Christianity, based on their history, literature, teachings, and present day practices. (F/W/S/SS)

SCIENCE-ENVIRONMENTAL

SCI 100 Natural Environment **3 0 3**

A survey course combining the general areas of biology, chemistry, and physics. The content is intended to relate these three areas to each other as they influence everyday living.

SOCIOLOGY

SOC 101 Community Resources **3 0 3**

A study of the services extended to families in the local, state, and federal community with emphasis placed on one's being able to recognize and use local, state, and federal resources in achieving families' goals and implementing their value system.

SOC 201 Introduction to Sociology **3 0 3**

A study of the fundamental principles and concepts of sociology with emphasis on contemporary American institutions in relation to technological change, ethnic groups, population trends, and social control. (F/S/SS)

SOC 203 Contemporary Problems and Social Issues **3 0 3**

A critical analysis of some of the major current social issues and problems in American society. (F/S/SS)

SOC 205 Marriage and the Family **3 0 3**

The study of family relationships, their forms and functions. Included in this study are cultural patterns, mate selection, sex roles, marital adjustment and maladjustment, child rearing, and the future of the American family. (F/W/S/SS)

SPANISH

SPA 101 Elementary Spanish **3 2 4**

A study of the basic elements of Spanish with emphasis on listening comprehension, oral communication, pronunciation, and grammar. The beginning sequence is designed for students with fewer than two years of high school Spanish. A two-hour lab is required for beginning levels. (F)

SPA 102 Elementary Spanish 3 2 4

A continuation of Spanish 101. Prerequisite: SPA 101. (W)

SPA 103 Elementary Spanish 3 2 4

A study of verb tenses, vocabulary, and sentence patterns with emphasis on understanding and speaking the language. Prerequisite: SPA 102. (S)

SPA 201 Intermediate Spanish 3 0 3

A continuation of the study of Spanish with emphasis on oral communication, reading, writing, culture, and history. A lab is provided for those in intermediate levels needing or desiring extra work. Prerequisite: SPA 103 or two years of high school Spanish and approval of instructor. (F)

SPA 202 Intermediate Spanish 3 0 3

A continuation of intermediate Spanish with emphasis on listening and understanding, speaking, reading, and writing. Prerequisite: SPA 201. (W)

SPA 203 Intermediate Spanish 3 0 3

A continuation of intermediate Spanish with emphasis on the four basic skills and on grammar. Prerequisite: SPA 202. (S)

SPA 211, 212, 213 Advanced Spanish 3 2 3

A sequence of courses conducted in the language, stressing the culture and history of Spanish, principally as reflected in the literature. Emphasis is on advanced composition and reading of selections from Spanish literature. Prerequisite: SPA 203. (F/W/S/SS)

SPEECH

SPH 101 Fundamentals of Speech 3 0 3

A study of oral communication with emphasis on speech theory, speech composition, preparation, and presentation. (F/W/S/SS)

UPHOLSTERY

UPH 1111 Upholstery Materials and Methods I 1 11 5

A study of the history and periods of furniture. Includes tools and equipment, hammer technique, staple gun technique, spring up methods, and webbing and burlap application. (F/W/S/SS)

UPH 1112 Upholstery Materials and Methods II 1 11 5

A continuation of UPH 1111 and basic methods for inside and outside upholstery and cushion styles. Prerequisite: UPH 1111. (F/W/S/SS)

UPH 1113 Upholstery Materials and Methods III 1 11 5

A course in the styles of furniture, including sofas, love seats, and recliners. Covers techniques in trimming band tufting and piping with continuous practice in these areas. Prerequisite: UPH 1112. (F/W/S/SS)

UPH 1114 Upholstery Sewing I 1 11 5

A study of upholstery sewing. Includes basic operations of the sewing machine and simple sewing techniques. (F/W/S/SS)

UPH 1115 Upholstery Sewing II 1 11 5

A course covering advanced upholstery sewing, sewing matched stripes, making patterns, and other sewing techniques. Prerequisite: UPH 1114. (F/W/S/SS)

UPH 1116 Upholstery Cutting I **1 11 5**

A course providing job experience devoted to basic cutting techniques, how to measure frames, cutting with shears, and lay cutting. (F/W/S/SS)

UPH 1117 Upholstery Cutting II **1 11 5**

A course in making patterns, cutting matched patterns, and lining up and cutting striped patterns. Prerequisite: UPH 1116. (F/W/S/SS)

WELDING

WLD 101 Welding Practices **3 0 3**

A course of study designed to acquaint the student with the fundamentals of shop safety, shop procedures, and tool and welding machine use and care. Study of welding theory, techniques, and machines is limited to nomenclature and function as it relates to proper welding knowledge of application and technique. During the course, knowledge and skill development include welding equipment and tools, oxyacetylene welding, gas welding of various type joints, and selection of proper welding materials used in the gas process. Related instruction develops symbol recognition. (F)

WLD 120 Welding, Oxyacetylene **1 3 2**

An introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Covers welding procedures such as practice in puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, and hard and soft soldering. Safety procedures in the use of tools and equipment are stressed through the program of instruction. The student performs mechanical testing and inspection to determine quality of the welds. (F/W)

WLD 121 Arc Welding **1 6 3**

A study of the operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect weaknesses in welding. Safety procedures in the use of tools and equipment are emphasized throughout the course. (W/S)

WLD 122 Commercial and Industrial Practice **2 3 3**

A course designed to build skills through practices in simulated and actual industrial processes and techniques. Includes sketching and layout on paper the size and shape description, listing the procedure steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection. Prerequisite: WLD 120, WLD 121. (F/S)

WLD 1101 Auto Body Welding **1 3 2**

A course providing welding demonstrations by the instructor and practice by students in the welding shop. Includes safe and correct methods of assembling and operating the welding equipment. Practice is given for bronze welding, fusion welding, fillet welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work. (F)

WLD 1112 Welding Codes and Inspection **3 0 3**

An introduction to the various types of tests and testing procedures used in testing the quality of the weld. Students perform the details of the test which gives adequate information on the quality of the weld. Tests to be performed include guided bend, tensile, magnetic partical, dye penetrant, X-ray, and hardness. Various sections of codes AWS, ASME, and API are studied according to the student's interest. (F)

WLD 1120 Welding Theory and Practice I **3 12 7**

A course dealing with the orientation to all oxyacetylene, shielded ARC shop equipment. Includes basic fundamentals of equipment set-up, safety demonstrations, practice procedures with group and individual demonstrations by the instructor. (F)

WLD 1120-1 (Part-time) **2 6 4**

WLD 1120-2 (Part-time) **1 6 3**

WLD 1121 Welding Theory and Practice II **2 18 8**

A course providing the student with a thorough understanding of ARC welding fundamentals and safety. Manual skills are developed to produce high quality ARC welds in all positions on mild steel. (W)

WLD 1121-1 (Part-time) **1 6 3**

WLD 1121-2 (Part-time) **1 6 3**

WLD 1121-3 (Part-time) **0 6 2**

WLD 1122 Commercial and Industrial Practice **3 9 6**

A course designed to build skills through practices in simulated and actual industrial processes and techniques. Includes sketching and layout on paper the size and shape description, listing the procedure steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection. Prerequisite: WLD 1120, WLD 1121. (SS)

WLD 1122-1 (Part-time) **2 6 4**

WLD 1122-2 (Part-time) **1 3 2**

WLD 1123-1 Inert Gas Welding I (TIG) **2 6 4**

A course providing the student with a thorough understanding of tungsten inert gas ARC welding fundamentals and safety. Provides training to develop the manual skill necessary to make high quality welds in all positions. Prerequisite: WLD 1121. (S)

WLD 1123-2 Inert Gas Welding II (MIG) **2 6 4**

A course providing the student with a thorough understanding of metallic inert gas welding fundamentals and safety. Provides training to develop the manual skills necessary to make high quality welds in all positions. (SS)

WLD 1124 Pipe Welding **3 12 7**

A course designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the ASME code. Prerequisite: WLD 1121. (S)

WLD 1124-1 (Part-time) 2 6 4

WLD 1124-2 (Part-time) 1 6 3

WLD 1125 Certification Practices 3 6 5

A course involving practice in welding the various materials to meet certification standards. The student uses various tests, including the guided bend and the tensile strength tests, to check the quality of his/her work. Emphasis is placed on attaining skill in producing quality welds. Prerequisite: WLD 1121, WLD 1124. (SS)

WLD 1126 Advanced Metal Inert Gas Welding 2 8 5

An intensive study of advanced metal inert gas welding with emphasis on both production and general uses of this process. Studies are made in wire types, size, and selection. The student works with this type machine exclusively, with practice in low and high carbon steels, stainless steels, and aluminum. Shielding gases used include carbon dioxide, argon, and various mixtures. Prerequisite: WLD 1123. (D)

WLD 1129 Basic Welding 1 3 2

A study of the basic characteristics of metals, equipment, and its construction and operation presented by means of audiovisuals and other educational media. Includes welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating gas and arc welding equipment are stressed. Practice is given in surface welding, bronze welding, silver-soldering, and flame-cutting and arc welding methods applicable to mechanical repair work. (F)

WLD 1130 Auto Body Welding 1 3 2

A course providing welding instruction and shop demonstrations in modern welding methods used by mechanics and autobody repairman to fabricate steel and to maintain the equipment. The student learns procedures and techniques of joining frame members, supporting members, struts, braces, and other parts according to approved practices. Prerequisite: WLD 1129. (D)

WLD 1131 Design of Welded Structures 3 6 5

A study of proper procedures used in the welding industry for fabrication and reinforcement. The student works with various methods of reinforcement and placement of reinforcing members. Studies are made of strengths of various metals, both ferrous and nonferrous. Prerequisite: WLD 1122 or approval of instructor. (D)

WLD 1132 Advanced Tungsten Inert Gas Welding 2 8 5

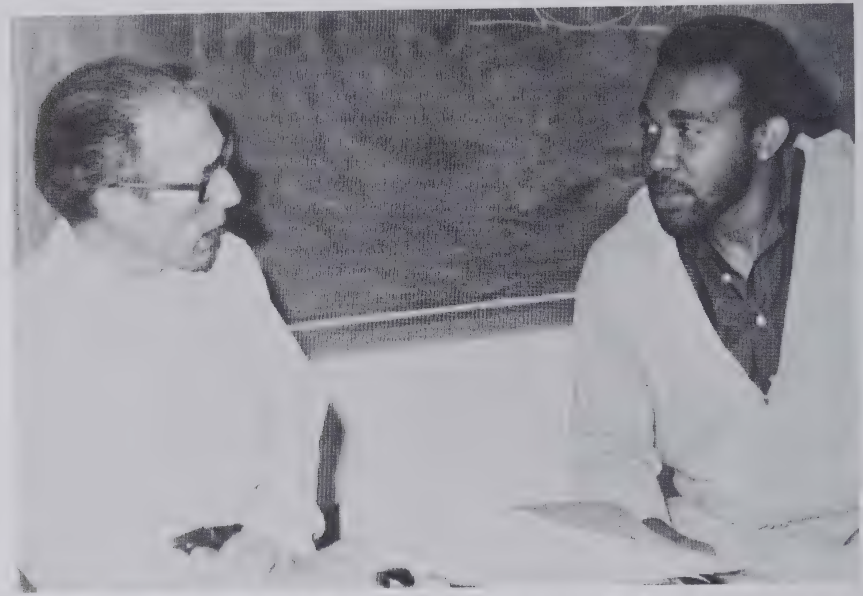
A course consisting of working exclusively with this process with emphasis on proper selection of materials, filler rod, shielding gases, and electrode manipulation. There are exercises in cost estimating and job estimating. The majority of the work is in nonferrous metals. Prerequisite: WLD 1123. (D)

WLD 1133 Operations of the Job Shop 5 3 6

A course dealing with the problems that are unique in the job shop. There are exercises in job estimating and cost estimating. Studies are made in material procurement and handling. Proper procedure for bidding on jobs is stressed. Prerequisite: WLD 1123. (D)

WLD 1134 Welding Power Supplies 3 1 3

A study of alternating current, direct current, and combination welding power supplies. Studies are also made of portable motor generator units. High frequency and remote control power supplies are covered, with exercises in machine selection to match the operation to be performed. Prerequisite: WLD 1121. (D)



CONTINUING EDUCATION PROGRAMS

GENERAL INFORMATION

WHAT IS IT?

Continuing Education provides an opportunity to:

(1) Finish high school
(2) Upgrade and improve present job skills
(3) Be trained while on the job
(4) Prepare for future employment
(5) Learn new hobbies and develop creative skills or talents for leisure activities
(6) Learn better home maintenance and repair techinques.

The continuing education department of Caldwell Community College and Technical Institute is an outreach service for Caldwell and Watauga counties. The program is designed to meet the needs and desires of the community by offering a wide variety of subjects taught at convenient hours in convenient locations in Caldwell and Watauga counties.

WHO CAN ENROLL?

Any individual who is 18 years of age or whose regular high school class has graduated. Persons between 16 and 18 years old who have special needs may enroll if they have the WRITTEN PERMISSION of the school system last attended. (Under certain conditions, the policy on page 10 will apply.)

WHAT DOES IT COST?

Most courses require a non-refundable $5 registration fee. Some courses, such as adult basic education, are free. Any charges should be paid at the first class session. Textbooks or special materials may be purchased from the campus bookstore.

HOW CAN I ENROLL?

Persons can register for a class by attending the first session. Applicants are usually admitted on the "first come, first served" basis.

HOW LONG DO COURSES LAST?

Most courses last approximately 10 to 11 weeks, depending on the nature of the course.

WHERE ARE CLASSES HELD?

Adult classes are held anywhere in Caldwell and Watauga counties where there are adequate facilities and equipment. In addition to the college campus, classes are held in community centers, public school buildings, churches, businesses, factories, and private homes.

WHEN ARE CLASSES HELD?

Day and evening classes are usually scheduled on a quarterly basis. Most classes meet once or twice a week, Monday through Friday, until the end of the course.

HOW DO I KNOW WHEN A COURSE I WANT IS OFFERED?

Information about classes is released each quarter through the local news media. Quarterly schedules are published and distributed by the college.

Information concerning course offerings may be obtained by calling the continuing education department at 396-3311 (Granite Falls), or 728-4323 (Lenoir), or 297-2185 (Boone).

WHAT CREDIT CAN I GET?

Most continuing education courses are noncredit. However, continuing education units (CEU) will be given for certain courses. These courses are designated and advertised as giving CEU credit prior to each quarter.

WHAT COURSES ARE OFFERED?

A partial list and description of courses available are listed in this catalog.

However, if 12 or more people are interested in a subject not listed and a qualified instructor and suitable space are available, Caldwell Community College and Technical Institute will be happy to offer the course.

ADULT HIGH SCHOOL DIPLOMA PROGRAM

The adult high school diploma program is designed to give adults who have less than a twelfth-grade education another opportunity to finish high school. This program is not designed to compete with regular high school programs.

WHAT DOES IT COST?

A non-refundable $5 registration fee is required. Books, materials, and supplies may be purchased for a small fee.

WHO CAN ENROLL?

Adults 18 years of age who are not currently enrolled in any public school may enroll in the program. Students 16 and 17 years of age may enroll if they have a referral from an official of the last school system attended. (Under certain circumstances the policy on page 10 will apply.)

DO I NEED A TRANSCRIPT?

Since adult high school classes do not operate on a unit system, the adult student is **not** required to submit a transcript of high school records.

HOW LONG WILL IT TAKE TO GRADUATE?

Adults may progress at their own rate of speed and earn a high school diploma by satisfactory performance on the high school equivalency tests.

WHO AWARDS THE DIPLOMA?

Through cooperation between Caldwell Community College and Technical Institute and the Caldwell and Watauga County Boards of Education, the adult high school diploma is awarded after the adult has passed the required tests in English, math, science, and social studies.

ADULT BASIC EDUCATION

WHAT IS IT?

The adult basic education program is designed to improve an adult's ability to speak, read, and write the English language. Other areas such as arithmetic, science, and social studies are included in the program. It provides pre-high school level instruction. All materials have been especially prepared for adults with emphasis on individual needs and interests.

WHO CAN ENROLL?

Adults who are 16 years of age or older not enrolled in public school who are presently functioning with less than eighth grade skills.

HOW CAN I ENROLL?

Call or write the continuing education department of Caldwell Community College and Technical Institute.

WHAT DOES IT COST?

All classes, books, materials, and supplies for this program are free.

WHERE ARE CLASSES HELD?

Classes are held in various locations in Caldwell and Watauga counties. New classes may be started with 8 to 10 students if a qualified instructor and suitable space are available.

WHEN ARE CLASSES HELD?

Classes are usually held twice a week, either day or evening. Adult basic education classes are held on a continuing basis. Interested persons should contact the continuing education department for further information.

ADVANCEMENT LABORATORY

The advancement laboratory is a study center where students use self-teaching materials to:

1. Prepare for and take the high school diploma examination
2. Work through elementary to high school level
3. Upgrade skills in specific subject areas
4. Overcome deficiencies in subjects needed for college entrance
5. Study in areas of general interest

Advancement lab personnel are available to assist those needing help and to administer required testing.

WHAT DOES IT COST?

A non-refundable $5 registration fee is charged for studying in the advancement laboratory. Books and materials may be purchased for a small fee.

WHEN AND WHERE?

The lab is on the college campus and is open from 8:00 a.m. to 9:00 p.m., Monday through Thursday. On Friday, it is open from 8:00 a.m. to 5:00 p.m.

WHO CAN ENTER?

Adults who are 18 years of age or older. Students 16 and 17 years of age must have a referral from an official of the last school system attended. (Under certain circumstances, the policy on page 10 will apply.)

COURSES AVAILABLE IN THE ADVANCEMENT LAB*

READING AND ENGLISH

Reading Laboratories
Effective Reading
Study Skills Library
Grammar
Vocabulary
Literature
Business Letters
Communications Skills
Spelling
Phonics

SOCIAL STUDIES

United States Geography
United States History
American Government
How a Bill Becomes a Law
The Constitution

SCIENCE

Anatomy and Physiology
Biology and Chemistry
Principles of Chemistry
Medical Terminology
Work and Machines
Physics
Vectors
Meterology and Astronomy

MATHEMATICS

Basic Mathematics
Algebra
Geometry
Trigonometry
Logarithms
Computing Square Roots
Introductory Calculus
The Slide Rule
Introduction to Probability
Think Metric

BUSINESS

Business Mathematics
Basic Filing
Bookkeeping
Accounting Fundamentals
Gregg Shorthand
Management
Typing

FOREIGN LANGUAGE

French
Spanish
German

GENERAL INTEREST

Interior Decoration
Learning Through Association
Effective Listening
Effective Notetaking
The Smile of Success
Psychology
Introductory Sociology
Bridge
How To Prepare For:
  Civil Service Exam
  Graduate Records Exam
  Miller Analogies Test
  National Teachers Exam-Commons

**This is only a partial listing of courses available in the advancement laboratory.*

PRE-JOB PROGRAM

WHAT IS IT?

The Pre-Job program is designed to instruct individuals in how and where to look for employment suited to their interests and skills. The program offers opportunities to those who seek self-improvement and successful employment. It also provides an opportunity for persons to continue their education. The main topics covered in the program are:

1. How to find a suitable job and the interviewing skills needed to obtain the job
2. How to develop confidence, positive attitudes, and communication skills
3. How to manage personal finances
4. Job placement assistance after completion of the program

WHO CAN ENROLL?

Unemployed or underemployed high school graduates or dropouts between the ages of 18 and 65 who are physically and mentally capable of gainful employment.

WHAT DOES IT COST?

A non-refundable $5 registration fee is charged at the beginning of the class.

WHERE ARE CLASSES HELD?

The Pre-Job center on the Caldwell College and Technical Institute campus.

WHO DO I CONTACT?

WRITE: Pre-Job Center
Caldwell Community College and
Technical Institute
1000 Hickory Boulevard
Hudson, North Carolina 28638
CALL: (704) 728-4323 or 396-3311

GENERAL ADULT OFFERINGS

Numerous continuing education noncredit classes are offered under the heading of general adult education. Many of these classes are taught off campus in recreation centers, schools, churches, and in a few instances, private homes.

General adult courses fall into the broad categories of the arts, crafts, job training and upgrading, practical personal skills, and special needs courses such as sign language for the deaf and driver's education for adults.

Special programs usually available on an annual basis include Great Decisions, social issues, comparative religions, and projects funded by the North Carolina Endowment for the Humanities.

HOME ECONOMICS

Caldwell Community College and Technical Institute offers varied courses in the home economics area. Training and education courses are provided for the individual and the professional. Among general interest courses offered are the following:

Beginning and Advanced Sewing
Tailoring
Clothing and Pattern Alterations
Diet and Weight Control
Basic Nutrition
Nutrition Education for the Elderly
Interior Design

A special six-course study for school food service personnel is designed to train the beginning employee and to upgrade the skills and techniques of the experienced food service manager and employee. A certificate is given upon completion of each course, with recognition for the completion of all courses given by the North Carolina Department of Public Instruction. Courses included in the program are as follows:

Overview
Equipment Use and Care
Organization and Personnel Management
Basic Nutrition and Menu Planning
Quantity Food Production
Food Procurement

EARLY CHILDHOOD AND PARENT EDUCATION

Caldwell Community College and Technical Institute offers a certificate program in early childhood education and a wide variety of courses in parent/family education. Among courses included in these ares are the following:

Working with the Young Child
Early Childhood Education
Physical Activities for Children
Effective Parenting
Nutrition in the Home
Math, Language, Science, and Music in Early
  Childhood

The program is designed for preschool assistants and parents.

TEACHERS' CERTIFICATE RENEWAL

Teachers' certificate renewal courses are provided in Caldwell and Watauga counties in cooperation with the local public schools. Students receive one credit toward certificate renewal for each 10 hours of successfully completed work. Course offerings have included:

- Mental Health in the Classroom
- Metric System
- Teaching the Exceptional Child
- Astronomy
- Minority Awareness
- History of Caldwell County
- Sports Medicine
- Communication Skills
- Drug Abuse/Use
- Education and Society
- Great Decisions
- Career Education
- Modern Novel
- Industry Articulation
- Environmental Curriculum
- Value Clarification

MANAGEMENT DEVELOPMENT PROGRAM

The management development program offered by Caldwell Community College and Technical Institute is designed to give the new manager or supervisor a headstart and to make a good manager better. The program is based on individual development instead of tests and grades. Managers and future managers should enroll in the program with the idea of improving their management skills.

Classes will be scheduled on a regular basis day or night, in the plant or at the college. Interested persons may preregister by calling the department of continuing education. Tuition is $5.00 and there may be a small charge for books, materials, and supplies.

Each person completing 150 hours of instruction will receive a diploma in management development. An individual could earn the diploma in approximately one year by attending class one night per week during that year. Course offerings have included:

- Art of Motivating People
- Principles of Supervision
- OSHA & First Aid
- Human Relations & Motivation
- Effective Communications
- Economics & Controlling
- Job Instruction Training
- Labor Laws for Supervisors
- Effective Writing
- Effective Speaking
- Speed Reading
- Creative Thinking
- Job Analysis Training
- Employee Evaluation and Interviewing
- Motion and Time Study

NEW AND EXPANDING INDUSTRY TRAINING

One of the basic objectives of Caldwell Community College and Technical Institute is to stimulate the creation of more challenging and rewarding jobs. In the endeavor to accomplish this objective, the college provides a training service for new and expanding industries in the community.

Subject to minimal limitations, the college, in cooperation with the Industrial Service Division of the N.C. Department of Community Colleges, will design and administer a special program for training the production manpower required by any new and expanding industry creating new job opportunities in North Carolina.

The major purposes of this program are to help new or expanding industry meet immediate manpower needs and to encourage industry to develop long-range training programs to satisfy continuing replacement and retraining needs.

The program includes:

1. Consultation in planning training program needs
2. Selection and training of instructors who may be recruited from the company and/or outside sources
3. Payment of instructors' wages
4. Provision of suitable space for a temporary training facility
5. Assumption of installation costs of equipment in temporary training facility
6. Payment of one-half the cost of nonsalvageable materials expended in the training program

SKILL TRAINING PROGRAMS

Caldwell Community College and Technical Institute's continuing education division offers courses designed either to upgrade job skills, to help persons develop new skills so that they may become more proficient in their vocation, or to train persons in new occupations, vocations, or job skills.

The courses are offered at a time and place convenient for the students, based on the availability of the number of students, the facilities, and necessary equipment. These courses can also be offered in a plant or other places of business where certain skill training is needed.

Skill courses that may be offered by the institution cover a wide area of skills from office to plant.

APPRENTICESHIP PROGRAM

The apprenticeship program has been recognized as one of the leading methods for acquiring the skills and knowledge necessary to become job-skilled craftsmen. Apprenticeship programs are usually on-the-job training with related instruction. CCC & TI, in cooperation with the

Apprenticeship Division of the North Carolina Department of Labor, Business and Industry, provides the related instruction for the apprenticeship. The college coordinates and conducts the related instruction for both registered and non-registered apprentices.

The apprentice may attend the classroom portion of training during the day or evening when the desired classes are offered. Some of the courses may be studied in the programmed method in the individualized instruction program.

An individual desiring entrance into such a program should consult his/her employer, apprenticeship representative, or the coordinator of industry programs at CCC & TI.

APPRENTICE LINEMAN'S TRAINING PROGRAM

The apprentice lineman's training program is designed to provide job training to men and women who work in public electric utilities, private electric utilities, telephone companies, municipalities, electric cooperatives, and other related lineman groups.

Listed below are the types of courses that are taught in the lineman's training school at Caldwell Community College and Technical Institute. Most of these classes consist of 40 hours of training and are usually completed in one week.

Apprentice Lineman I
Apprentice Lineman II
Apprentice Lineman III
Apprentice Lineman IV
Advanced Bucket School
Advanced Hot Stick School
Transformer School
Staking School
Underground Cable School

HEALTH RELATED TRAINING

The department of continuing education of Caldwell Community College and Technical Institute offers special courses in nursing and other health related occupations to the local community. Many of these special programs are administered in cooperation with the area health institutions and agencies. Course offerings have included:

Nurse's Assistant
Ward Secretary
Geriatric Assistant
First Aid CPR Training
Coronary Care
Pre-Natal Care
Lamaze
Hospital Inservice Training
Public Health Agencies Inservice Education

Coronary Care Nursing
Emergency Medical Technician
Industrial First Aid
Industrial Safety
Audiology (Hearing Testing)
Registered Nurse Refresher Courses

SPECIAL NEEDS PROGRAMS

To meet the total educational needs of the community, Caldwell Community College and Technical Institute's department of continuing education offers courses for "special populations." Classes are conducted in sheltered workshops, rest homes, nursing homes, senior centers, treatment centers, prisons, and varied other meeting places where persons with special needs are located.

The types of classes offered are directly related to the needs of each group but, overall, represent a wide variety of offerings. These have included auto mechanics, small engine repair, activity coordination, crafts, proper grooming and hygiene, driver's training, woodworking, quilting, group speech therapy, culinary arts, reality orientation, certification in activity coordination, alcohol and drug abuse, nutrition, basic home living skills, and job readiness.

FIRE SERVICE TRAINING

Caldwell Community College and Technical Institute offers fire service training to both volunteer and career firemen. This training program is designed to increase firemen's technical knowledge, to train fire service personnel in the latest techniques and methods of fire fighting, to improve their skills in fire-ground operations, and to expose them to a variety of fire situation experiences.

The training program is taken directly to the individual fireman. Training sessions are held in local fire departments allowing the individual to be trained as an organized group utilizing equipment they would ordinarily use in controlling fire.

A certificate is awarded to each person successfully completing the course. Course offerings have included:

Industrial Fire Brigade
Portable Fire Extinguisher
Business Fire Safety
Firemanship Training (Beginning and Advanced)
Fire Apparatus
Hose Practice
Breathing Apparatus
Home Fire Safety
Pump Schools
Rope Practices

POLICE SCIENCE

Caldwell Community College and Technical Institute offers police science training to personnel of law enforcement agencies. The goal is to promote and provide adequate training and education courses in legal and technological fields that will keep law enforcement officers abreast of advancements in law enforcement techniques.

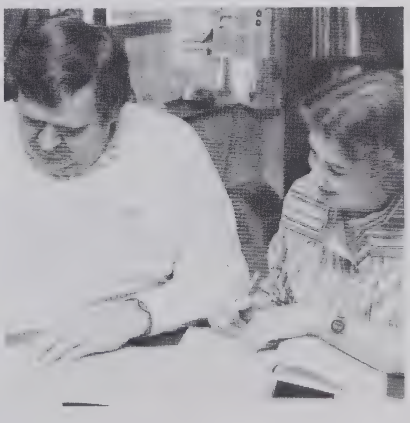
North Carolina State Law requires that new police officers complete 160 hours of police science training within one year after employment. These courses are offered annually by the college. Courses are also offered to those officers who wish to upgrade job skills.

A certificate is issued upon completion of each course but credit cannot be transferred and applied toward an associate in applied science degree. Course offerings have included:

Police Report Writing
Police Firearms Training
Police Science I
Police Science II
Weapons Safety
Police Communicatons/Radio
Introduction to Criminal Investigation
Jail School
Laws of Arrest
Inmate Counseling
Civil Disorder
Cartridge Reloading
History of Constitutional Law
Chemical Tests/Alcohol

ADDITIONAL COURSES

If 12 or more people want to learn about a subject which is not currently offered, the college will make every effort to find a qualified instructor and offer the course anywhere in Caldwell or Watauga counties where suitable space is available. Requests may be made by calling the continuing education department 728-4323 (Lenoir), 396-3311 (Granite Falls & Hickory), or 297-2185 (Boone).



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Caldwell Community College & Technical Institute

1981-82

Caldwell Community College and Technical Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as and when deemed necessary.

Students having questions not answered in this publication may obtain further information from the Student Development Office, Caldwell Community College and Technical Institute.

Caldwell Community College and Technical Institute does not discriminate against any person on grounds of race, creed, color, sex, handicap, or national origin.

Cover photo by Sherry Wrenn.

CALDWELL COMMUNITY COLLEGE AND TECHNICAL INSTITUTE

CALDWELL COUNTY CAMPUS
Highway 321 South
1000 Hickory Boulevard
Hudson, North Carolina 28638
Telephones 704/728-4323 or 704/396-3311

WATAUGA COUNTY DIVISION
Highway 421 West and 105 By-Pass
Route 6, Box 240B
Boone, North Carolina 28607
Telephones 704/297-2185 or 704/297-2186

GENERAL CATALOG

Volume X, Number 1
Effective September 1, 1981

ACADEMIC CALENDAR 1981-82

FALL QUARTER, 1981-82

August 10, Monday	Radiology/Nuclear Medicine Programs Begin
September 1, Tuesday	Faculty/Staff Orientation
September 2, Wednesday	Registration, Boone Campus Orientation/Registration for New Students, Lenoir Campus
September 3, Thursday	Registration, Lenoir Campus
September 4, Friday	Professional Development Day
September 8, Tuesday	Classes Begin
September 8, 9, 10	Late Registration
October 15, Thursday	Last Day for Dropping Course
November 9, Monday	Early Registration, Boone Campus
November 11, Wednesday	Early Registration, Lenoir Campus
November 19, 20, 23	Exams
November 23, Monday	Fall Quarter Ends

WINTER QUARTER, 1981-82

November 24, Tuesday	Registration, Boone Campus
November 26, 27	Thanksgiving Holidays
November 30, Monday	Registration, Lenoir Campus
December 2, Wednesday	Classes Begin
December 2, 3, 4	Late Registration
December 18, Friday	Christmas Holidays Begin After Last Class
December 21, Monday	Professional Development Day
January 4, Monday	Classes Resume
January 22, Friday	Last Day for Dropping Course
February 8, Monday	Early Registration for Spring Quarter, Boone Campus
February 10, Wednesday	Early Registration for Spring Quarter, Lenoir Campus
February 26, March 1, 2	Exams
March 2, Tuesday	Winter Quarter Ends

SPRING QUARTER, 1981-82

March 3, Wednesday	Registration, Boone Campus
March 4, Thursday	Registration, Lenoir Campus
March 8, Monday	Classes Begin
March 8, 9, 10	Late Registration
April 9, Friday	Easter Holidays Begin After Last Class
April 16, Friday	Professional Development Day
April 19, Monday	Classes Resume
April 21, Wednesday	Last Day for Dropping Course
May 11, Tuesday	Early Registration for Summer Quarter, Lenoir Campus

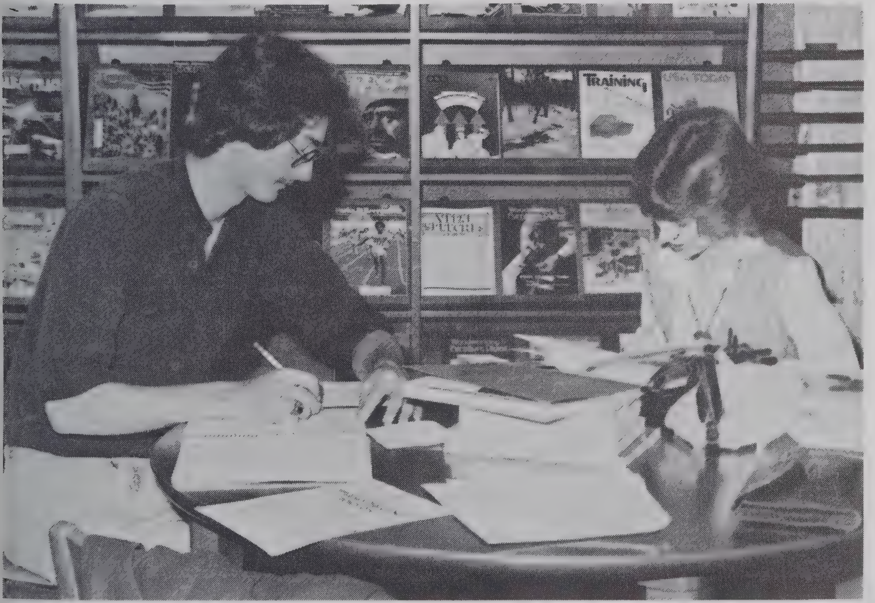
May 13, Thursday	Early Registration for Summer Quarter, Boone Campus
May 26, 27, 28	Exams
May 28, Friday	Spring Quarter Ends

SUMMER QUARTER, 1981-82

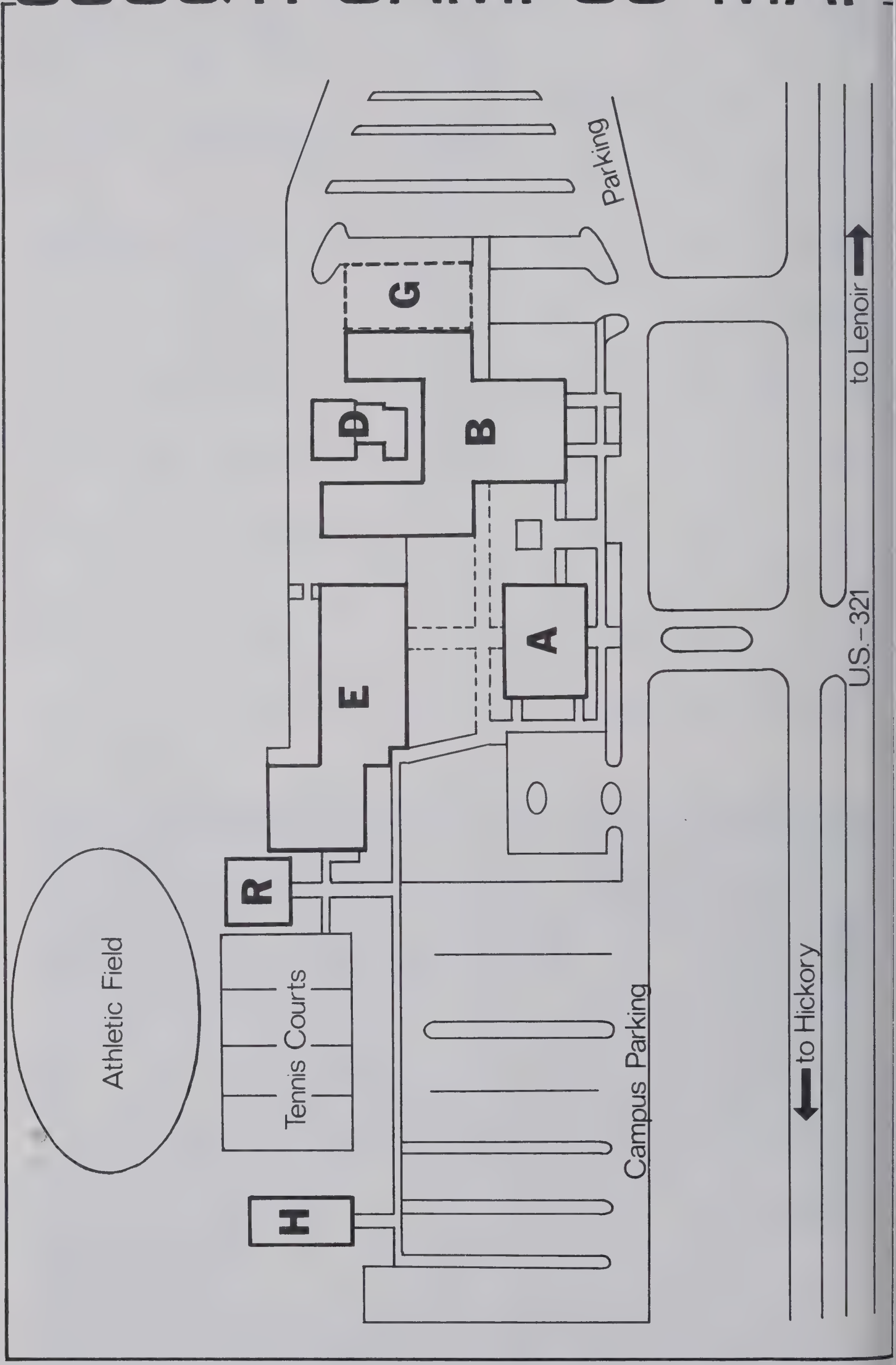
June 2, Wednesday	Registration, Boone Campus
June 3, Thursday	Registration, Lenoir Campus
June 7, Monday	Classes Begin
June 7, 8, 9	Late Registration
July 2, Friday	Independence Day Holidays Begin After Last Class
July 8, Thursday	Classes Resume
July 14, Wednesday	Last Day for Dropping Course During Regular Session
August 3, Tuesday	Early Registration for Fall Quarter, Lenoir Campus
August 5, Thursday	Early Registration for Fall Quarter, Boone Campus
August 16, 17, 18	Exams
August 18, Wednesday	Summer Quarter Ends
August 20, Friday	Graduation

SUMMER MINI-SESSIONS, 1981-82

June 7, Monday-June 25, Friday
June 30, Wednesday-July 23, Friday (July 5, 6, 7 holidays)
July 29, Thursday-August 18, Wednesday



CCC&TI CAMPUS MAP



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GENERAL INFORMATION

HISTORY OF THE COLLEGE

The 1963 North Carolina General Assembly passed the Community College Act creating a system of comprehensive community colleges, technical institutes, and industrial education centers in the State under the State Board of Education.

The 1979 General Assembly rewrote the Community College Act and authorized a new board for community colleges, effective January 1, 1981.

In January, 1964, the Caldwell Community College and Technical Institute was tentatively approved by the State Board of Education. On March 28, 1964, the people of Caldwell County approved the college through a bond vote of $600,000 for the purchase of a site and construction of facilities and up to 5 cents tax authorization for operating the college. Final approval by the State Board of Education followed on April 2, 1964.

The first president was selected that fall and began work in November, 1964. A permanent site was selected for the institute in January, 1965. Selection of an architect was made in February, 1965. New facilities were occupied in September, 1967.

On July 1, 1970, Caldwell Technical Institute was authorized by the North Carolina General Assembly through the State Board of Education to offer college transfer courses. Subsequently, Caldwell Technical Institute changed its name to Caldwell Community College and Technical Institute.

A referendum seeking approval of the issuance of $800,000 in bonds by Caldwell County was proposed and voted upon on December 7, 1971. The local money was to match a federal grant of $799,306 under the Appalachian Region Act. This referendum was passed by more than a 2 to 1 majority. In 1973, the institution received $500,000 of state construction funds from an appropriation by the North Carolina General Assembly. These funds enabled the trustees to increase the size of the college by about 77,000 square feet. The new buildings were occupied during the 1974-75 school year.

In 1979 the Caldwell County Commissioners authorized an expenditure of $600,000 to match a proposed Appalachian Regional Grant of $400,000 to construct additional facilities. The added 19,000 square feet will make a total of 154,000 square feet of building space at the institution.

In September, 1973, Caldwell Community College and Technical Institute, Watauga Division was established to provide limited credit and more extensive noncredit offerings to the citizens of Watauga County in various locations throughout the county. Appalachian State University permits CCC & TI Watauga Division students to use the university's library facilities.

The annual enrollment growth has been increasing since the college's beginning in 1964. By the fall of 1979, approximately 1361 full-time equivalent (FTE) students were enrolled in one-year diploma and two-year degree programs and 1097 FTE in continuing education programs for a total full-time equivalent enrollment of 2458. To teach these students and provide the required support and other services, the institution employs some 130 full-time persons and approximately 545 part-time persons each year.

PURPOSE AND OBJECTIVES

Caldwell Community College and Technical Institute, serving primarily Caldwell and surrounding counties and operating within the legal framework set by the North Carolina General Assembly, opens its doors to any adult desiring to learn. All students are offered the opportunity and are encouraged to develop their intellectual, social, occupational, civic, cultural, and physical potential. The college is committed to providing quality, inexpensive, continuing education opportunities to meet the needs of adults at facilities located within commuting distance.

In keeping with the general purpose of Caldwell Community College and Technical Institute, the board of trustees, the staff, and the faculty have adopted certain specific objectives. These are to:

Provide effective instruction to all who enroll.

Provide the opportunity for individuals to complete elementary or secondary school by offering adult basic education and high school equivalency programs.

Provide a variety of one-year vocational, two-year technical, and two-year college transfer programs that reflect the changing needs of business, industry, and professional and public services.

Provide general interest courses that meet adult education and community service needs.

Provide guidance and counseling services to assist students in developing an understanding of themselves.

Provide cultural programs and educational services for community enrichment.

Provide assistance and information to stimulate interest in education throughout the community.

LOCATION

The Caldwell Community College and Technical Institute is located on a 78-acre tract of land in Hudson, North Carolina. Since the college is on Highway 321, it is accessible to the population centers of Lenoir (5 miles), Granite Falls (5 miles), and Hickory (10 miles).

The Watauga instruction facility and administrative offices are located at Highway 421 W. and 105 By-Pass in Boone, North Carolina.

ACCREDITATION

Caldwell Community College and Technical Institute is regionally accredited by the Southern Association of Colleges and Schools.

Diploma, associate in applied science, and associate in arts or science programs have been approved by the North Carolina Department of Community Colleges and the State Board of Education.

The radiologic technology program is accredited by the Council on Allied Health, Education and Accreditation of the American Medical Association. The nursing program is approved by the North Carolina State Board of Nursing. The nuclear medicine program is accredited by the Joint Review Committee of Education in Nuclear Medicine Technology of the Council on Allied Health Education and Accreditation.

ADMISSIONS

GENERAL ADMISSIONS REQUIREMENTS

Caldwell Community College and Technical Institute is a co-educational college open to any individual meeting the admission requirements for the particular course or area in which that individual wishes to enroll. These requirements vary with the areas of study offered by the college.

Students wishing to enroll in a curriculum program at Caldwell Community College and Technical Institute should contact the student development office for application forms, interview appointments, and dates for placement testing.

All technical and college transfer programs require high school graduation or the equivalent. Students enrolled in the vocational programs must be 18 years of age or high school graduates.

Applicants to Caldwell Community College and Technical Institute should:

1. Secure application forms and make application for admission.
2. Request that a transcript of past high school and college work be submitted to the student development office.
3. Complete the required placement tests for specific programs.
4. Have an interview with a member of the student development department or a faculty advisor.

PLACEMENT INVENTORIES

English, math, and reading placement inventories are required for all college transfer and occupational degree programs. The reading placement inventory is required for all occupational diploma programs.

Satisfactory placement scores in reading, math, and English are required for admission to radiologic technology, nuclear medicine, nursing, occupational therapy assistant, and recreational leadership programs.

Cognitive Style Mapping is also recommended for all full-time students.

PROVISIONAL STUDENTS

A student applying too late to complete pre-entrance requirements may be permitted to enter the college as a provisional student. Provisional students must complete all requirements within the first quarter of attendance.

SPECIAL CREDIT STUDENTS

Caldwell Community College and Technical Institute recognizes that some adults who are not pursuing a degree or diploma may wish to register for an occasional course. Special credit students may register by completing the proper application forms. A student may remain in this category as a special student until twelve quarter hours of credit are completed or until the student transfers into a particular program. The student must then complete the proper placement testing and submit a school transcript.

FOREIGN STUDENTS

Caldwell Community College and Technical Institute is authorized by the U.S. Department of Naturalization and Immigration to admit foreign students. This permission was granted on July 12, 1966, with authorization number WAS 214-1562.

Foreign students must meet the same admission requirements as all other students. Included with the application should be a transcript from an authorized school or university. If this document is not in English, it should be translated and certified before being sent to CCC & TI. The applicant should also present a statement from a qualified authority indicating sufficient proficiency in English to cope with studies at CCC & TI.

VISITING STUDENTS

Students who are working toward a degree in another institution may register for courses at Caldwell Community College and Technical Institute. The student must complete the application forms and submit a letter from the institution from which that student expects to graduate indicating student status. It is the responsibility of the visiting student to request that transcript(s) of work taken at CCC & TI be sent to the "home" institution.

TRANSFER STUDENTS

Students may be admitted with advanced standing by transfer from technical institutes, colleges, or universities. If admitted, the prospective student's record will be evaluated by the registrar to determine the amount of credit that can be transferred and applied toward the program in which the applicant desires advanced standing. Courses in which a student has made a grade of "D" may be transferred to Caldwell Community College and Technical Institute if the overall average of the courses transferred is 2.0 or better.

POLICY ON ADMISSION OF HIGH SCHOOL STUDENTS

An applicant for admission to a course or courses at Caldwell Community College and Technical Institute who is neither a high school graduate, nor high school dropout, nor eighteen years of age, but who is concurrently registered (or on vacation) as a student in one of the two upper grades of high school, may be admitted, subject to the discretion of the college administration and taking into consideration the constraints of facilities and funds available; provided that such applicant's admission to each course shall require written approval or recommendation of the superintendent or other designated executive or administrative officer having responsibility in or over the high school in which the student is enrolled while attending Caldwell Community College and Technical Institute.

An applicant not attending high school who is between the ages of sixteen and eighteen years and who has special educational needs may be admitted to appropriate courses or programs provided:

(1) That the applicant has left the public schools no less than six calendar months prior to the last day of regular registration of the quarter; and

(2) That the application is supported by a notarized petition of the applicant's parent, legal guardian, or other person or agency having legal custody and control, which petition certifies the place of residence and date of birth of the applicant, the parental or other appropriate legal relationship of the petitioner to the applicant, and the date on which the applicant left the public schools. However, all or any part of the six-month waiting period may be waived by the superintendent of the public schools of the administrative unit in which the applicant resides; and

(3) That such admission will not pre-empt institution facilities and staff to such an extent as to render the institution unable to admit all applicants who have graduated from high school or who are eighteen years of age or older.

SUSPENSION, DISMISSAL, AND READMISSION

Students will be expected to conduct themselves at all times as individuals of prudence and maturity. The rights and feelings of others will be respected. Students shall demonstrate a high regard for school facilities and property and for the personal property of others.

School regulations which serve to control such activities as vehicular traffic and parking, smoking, and other aspects of personal conduct must be observed. Students may be suspended or dismissed for conduct which is considered incompatible with standards of propriety and good judgment.

Readmission of dismissed students at a subsequent session will be at the discretion of the college. Students should refer to the student handbook for details on disciplinary procedures and regulations pertaining to suspension and expulsion.

A student dismissed from the college for any reason can petition the admissions committee to consider his/her readmission after one quarter's absence following dismissal.

ACADEMIC STANDARDS

GRADING SYSTEM

Official grades are issued for each student at the end of each quarter. Students who lack passing averages at mid-quarter should schedule a conference with the instructor and/or their faculty advisor.

Students enrolled in curriculum program courses will be graded by the letter-grade system shown below and assigned a grade point equivalent in quality points for each quarter scheduled.

Numerical Equivalent	Letter Grade	Grade Point Equivalent
93-100	A — Excellent	4 quality points each quarter hour
85-92	B — Good	3 quality points each quarter hour
77-84	C — Average	2 quality points each quarter hour
70-76	D — Below Average	1 quality point each quarter hour
Below 70	F — Unsatisfactory	0 quality points each quarter hour

I — Indicates failure to complete certain course requirements because of extenuating circumstances.
W — Student withdrew from the course.
Y — Indicates no grade or credit given.
P — Pass — No quality points given.

GRADES OF "I" (INCOMPLETE)

An "I" grade in a course indicates the student has not met (for whatever reasons) the minimum objectives of the course set up by the instructor and/or the departments involved; however, the student is making satisfactory progress at the time the grade is given. This "I" may be removed in one of two ways:

1. Re-registering for the course and completing all requirements for the course;

2. Completing the requirements for the course as stipulated in a written agreement drawn by the faculty member involved and signed by the student and faculty member. The agreement will specify the work to be completed and the period of time within which a student may complete the work and, in no case, will that period of time exceed one year. Copies of this agreement should be sent to the student development office and the student's advisor. The student shall be given a copy and the faculty member should retain a copy for his/her files.

Veterans should check with the veterans coordinator in the student development office upon receiving an "I" grade and before attempting to re-register for the course.

WITHDRAWING FROM COURSES AND/OR SCHOOL

Students who withdraw from a class or from the college should first consult with their academic advisor and then contact the registrar in the student development office. Failure to make these contacts and to withdraw officially from a class or from the college prevents college personnel from offering assistance to the student and increases the chance of errors in recording of official grades and records.

A student may withdraw from a course and receive a grade of "W" up until fifty percent of the class contact hours have elapsed. The grade of "W" will have no bearing on the grade point average. After the midpoint, or after fifty percent of the class contact hours have elapsed, a grade of "W" may not be given on a student-initiated drop petition. However, an instructor may initiate a drop petition after the midpoint and assign a grade of "W".

Veterans should check with the veterans coordinator in the student development office for specific VA regulations concerning withdrawals and class repeats.

COURSES REPEATED FOR CREDIT

When a course is repeated, the last grade is recorded as the final grade for the course, and only the last hours attempted are counted in determining the student's grade point average.

AUDITING

A student who audits a course pays the regular registration and tuition fees. Auditors do not take tests, examinations, or receive grades or credit and cannot later change the "audit" to credit.

Any student who wishes to audit a physical education course must have the department chairman's approval.

CREDIT BY EXAMINATION

Advanced placement is available to those students who, because of their demonstrated abilities, are qualified to accelerate their studies. To obtain advanced placement, the student may apply to take a proficiency examination in a subject when the student feels qualified to do so. Application for such an examination must originate with the registrar and must have the approval of the department chairperson. If the student has registered for the course and is on the class roll at the time of the proficiency exam, final grades will be treated as a regular course (A,B,C,D,F). If the examination is given prior to registration for the course, the grade will be either P—passed or F—failed. Only hours passed will be recorded on the transcript.

Caldwell Community College and Technical Institute offers college credit for the subject area examinations included in the College Level Examination Program (CLEP). Credit will be granted toward a degree following a student's registration and enrollment.

INDIVIDUAL STUDY (IDS)

Eligible students may apply to take a course on an individual study basis when it is listed in the school catalog but is not being offered during the designated quarter. Students may apply at any time through the student development office. Permission must be obtained from the department chairman responsible for the course.

INDEPENDENT STUDY (IST)

Eligible students may wish to pursue the study of a particular subject which is not listed in the school catalog. Under this program, the student designs and pursues a project with an instructor serving as consultant. For information on independent study, the student should consult with the student development office. Permission must be obtained from the chairman of the department in which the study will be done.

CLASS DESIGNATION

Students completing 45 quarter hours of course work will be listed as sophomores.

FACULTY ADVISOR SYSTEM

The faculty advisor program is a cooperative effort of the faculty and the student development office. At the time of enrollment, each student is assigned an advisor who will assist that student in planning programs and selecting courses so appropriate progress will be realized. Counselors serve as advisors to special credit students. Advisor/advisee conferences are held at least once each quarter. Specific dates for these conferences, along with additional instructions, are listed in the current student handbook.

SCHEDULE CHANGES

Change of student schedule after registration has been completed will be made only with permission of the registrar, advisor, and instructor.

ACADEMIC PROBATION

Caldwell Community College and Technical Institute considers the following accumulative grade point average for total hours attempted as evidence of satisfactory academic progress at the college:

Quarter Hours Attempted	Grade Points Awarded
12	1.00
24	1.25
36	1.50
48	1.75
Graduation*	2.00

All students failing to maintain the average above will be placed on academic probation for one quarter. The student development office will notify students by letter of probationary status and will advise those students to make an appointment with their academic advisor. The advisor will explore various options with the student, including the following:

a. reduction of course load
b. referral to the student development office for individual counseling
c. tutoring assistance
d. attending seminars on effective study techniques
e. guidance into another curriculum or program
f. enrolling in additional preparatory courses
g. reduction of nonscholastic activities

Any curricular student on probation will remain on probation until that student's cumulative GPA reaches the standards of progress listed above.

Students receiving VA benefits should check with the veterans coordinator for VA regulations concerning probation, progress, and benefits.

ADVISED STATUS

Any student, following the completion of one quarter of study at the college level, who fails to meet the grade point average listed below will be considered on "advised status." This is not academic probation and does not involve a student's accumulative grade point average. It is a status based on a student's grade point average for the preceding quarter. It is hoped that appropriate action taken by the student and that student's academic advisor will prevent the student's being placed on academic probation in the future.

Quarter Hours Attempted to Date	Grade Point Average for the Preceding Quarter
36 and under	1.5
37-72	1.75
73 and over	2.00

Any student on advised status will be notified by letter of such status by the student development office. The letter will advise the student to make an appointment with the academic advisor so that the following options may be explored:

a. reduction of course load
b. referral to the student development office for individual counseling
c. tutoring assistance
d. attending seminars on effective study techniques
e. guidance into another curriculum or program
f. reduction of nonscholastic activities

COURSE LOAD

Students enrolled for 12 or more credit hours are classified as full-time students. Those taking less are classified as part-time. Normal course load will vary from one curriculum to another and should be carefully planned with the advisors. Students may enroll for a maximum load depending upon their capabilities as determined by their advisors. A normal course load is outlined by departments in this catalog.

STUDENT TUTORIAL ASSISTANCE

Special assistance is available for students in all areas of study at the college. Tutors may be assigned to students at no cost to the student. To request a tutor, students should contact the course instructor.

Instructors are also available for conferences at regularly scheduled office hours or by appointment. It is the responsibility of the student to seek extra help when needed.

DEGREE/DIPLOMA REQUIREMENTS

All students should refer to the college catalog or to the program check sheets for information about the courses required for graduation in the various areas of study. By conferring with the advisors when questions arise and by following the check sheets, students will tend to be more accurate in the proper selection of courses. Check sheets are recommended for all students and are required for all veterans.

REQUIREMENTS FOR GRADUATION

A student is eligible for graduation when the following requirements have been completed:

1. The student must file an application for a degree/diploma during the first two weeks of the last quarter the student is in attendance.
2. All the requirements for a diploma/degree in a particular program must be satisfactorily completed.
3. The student must have a quality point average of 2.0.
4. The student must take care of all financial obligations to Caldwell Community College and Technical Institute.

Graduation exercises will be held at the end of the summer quarter. All candidates for graduation are expected to be in attendance.

RESIDENCY REQUIREMENTS FOR GRADUATION

Students transferring from other schools to Caldwell Community College and Technical Institute must complete twenty-five percent of their course requirements at CCC & TI in order to qualify for graduation.

HONORS

Dean's List—At the end of each quarter, an academic honor list will be published of all students who complete 10 or more credit hours and who have a quality point average of 3.25 or above.

Graduation With Honors—A graduating student who has earned an overall quality point average of 3.50 or better during studies at Caldwell Community College and Technical Institute will receive the diploma or degree "with honors."

RESTRICTIONS ON CLASS ADMISSIONS

No person may attend classes unless the registration procedure has been completed.

ATTENDANCE POLICY

At the request of the faculty senate the institutional attendance policy has been modified. The new statement follows:

Students are expected to attend every class meeting. However, it is recognized that occasional absences may be necessary. A student is responsible for any work missed. At a minimum, a student will be dropped from class membership after the fifth consecutive absence. Beyond this, each department will formulate its own attendance policies in accordance with the varying requirements of the different curriculums. These requirements will be published in the student handbook and/or announced at the beginning of each course.

TRANSCRIPTS OF CREDIT

Transcripts of credit will be supplied to all students and former students requesting them, subject to certain conditions. Individuals must have made satisfactory financial arrangements to care for all amounts due the college.

CONFIDENTIALITY OF STUDENT RECORDS

Caldwell Community College and Technical Institute supports the Family Educational Rights and Privacy Act of 1974 which outlines the rights and privacies afforded each student. Information on access to student records is found in the student handbook.

CATALOG REQUIREMENTS

Candidates for the diploma or degree must meet the requirements as outlined in the catalog for the year of their first enrollment or for any subsequent bulletin under which work is taken, but in all cases must complete work for their diploma or degree within 10 years from the date of the catalog selected.

TUITION AND FEES

POLICIES REGARDING STUDENT EXPENSES

All tuition and required fees are due and payable at the time of the student's registration. The controller or a delegated representative shall have the authority to permit deferred payments of tuition and fees in situations where it is determined that a student is undergoing emergency financial conditions. The student must first see the financial aid officer who will make recommendations to the controller.

All checks and money orders must be made payable to Caldwell Community College and Technical Institute. No student will be allowed to graduate, to receive grades or transcripts, or to register for a new quarter if said student has an unpaid balance due from any previous quarter. Exceptions will be made only if such an outstanding balance has been guaranteed in writing by a financially responsible person or organization.

In the event a student writes a check with insufficient funds to the college, the college will no longer accept checks from that individual.

TUITION

Caldwell Community College and Technical Institute offers an educational opportunity at minimum cost to the student. Tuition fees are set by the State Board of Community Colleges and are subject to change without notice. Current basic fees to be paid by students upon enrollment are as follows:

In-state Students	
12 credit hours or more (full-time)	$39.00
Part-time students per quarter hour	3.25
Out-of-state students	
12 credit hours or more (full-time)	$198.00
Part-time students per quarter hour	16.50
Late Registration Fee	5.00

Tuition for Students Enrolled in More Than One Institution

Where a student desires to enroll for the same quarter at two or more institutions of the community college system, the total amount of tuition shall not exceed the maximum tuition. When enrolled at the second institution, the student must produce his/her validated registration receipt in order to waive any payment of tuition. Activity fees will be charged. It is the student's responsibility to see that transcripts are sent to the "home" institution at the completion of the quarter.

Tuition for Older Citizens

North Carolina residents sixty-five years of age or older shall be exempt from the payment of curriculum tuition and activity fees.

Tuition for Inmates

Prison or correctional units inmates will be exempt from the payment of tuition or activity fees.

OTHER CHARGES

Student Activity Fees

Curriculum students will be charged $1 per course activity fee up to a maximum of $5 per quarter. This fee is not refundable unless there is an institutional error.

Accident Insurance

All CCC & TI students and employees must sign a waiver prepared by the college which states that the student or employee will assume personal responsibility for all medical costs incurred in case of accident or emergency while attending school or at work, including ambulance and emergency room costs. After signing the waiver, the student or employee is given the opportunity to enroll in a low-cost accident insurance program available through the college.

The policy offered will cover enrollees while traveling directly to the college; during hours of college operation; while traveling directly from the college to home; and while participating in college-sponsored activities.

Insurance coverage is from September 1 through August 31 with no refunds of unused coverage. Students who begin classes in the winter quarter or spring quarter must still pay the full amount. The cost of the policy is $5 per year.

Malpractice Insurance

Special malpractice insurance is required for nursing, radiology, nuclear medicine, occupational therapy assistant, and biomedical electronics technology students. Coverage charges may be prorated. This fee is not refundable.

Books and Supplies

Students are required to buy the necessary textbooks and supplies prescribed in the curriculum area they are entering. These vary according to different courses taken by the students. An average expenditure of $75 can be expected by the new fall quarter students for books. Normal school supplies are sold during the regular bookstore hours.

Graduation Fees

A graduation fee of $6 for a diploma/degree is payable at the beginning of the quarter in which the student completes his/her program. This fee is not refundable.

Late Registration Fee

A late registration fee of $5 will be assessed any student registering after scheduled registration days. The late registration fee is not refundable unless there is an institution error.

TUITION REFUND POLICY

Tuition refunds for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw from the institution for unavoidable reasons. In such cases, two-thirds of the student's tuition may be refunded if the student withdraws within ten calendar days from the first day of classes as published in the school calendar. Tuition refunds will not be considered for tuition of $5 or less unless a course or curriculum fails to materialize. In such cases, all the student's tuition shall be refunded. Refunds may be calculated to the nearest whole dollar.

If a student is compelled to withdraw from the college during the first ten calendar days for reasons which are, in the judgment of the college, unavoidable, the student may be allowed full credit for the unrefunded tuition and fees if application for readmission is made during any of the next four calendar quarters and a petition in writing is made to be allowed such credit.

FEES NOT REFUNDABLE (Unless Institutional Error):
Insurance payment
Activity fee
Special course fee
Graduation fee
Ring deposit
Invitation and calling card cost

Only the director of counseling or the registrar will be authorized to recommend a tuition refund. Student appeals on the refund issue will be made to the vice president of administration. In all cases, the vice president of administration will make the final decision as to whether a refund is due and, if so, the amount due.

ACCOUNTS

No transcripts, certificates, diplomas, or degrees will be issued, and students will not be permitted to complete registration until accounts are satisfactory to the business office, dean of students, financial aid office, and the learning resource center.

RESIDENCE STATUS FOR TUITION PAYMENT

General

The tuition charge for legal residents of North Carolina is less than for nonresidents. To qualify for in-state tuition, a legal resident must have maintained a domicile (legal residence) in North Carolina for at least the twelve months preceding the date of first enrollment or re-enrollment in an institution of higher education in this state. Student status in an institution of higher education in this state shall not constitute eligibility for residence to qualify said student for in-state tuition.

The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification.

Minors

A minor is any person who has not reached the age of eighteen years. The legal residence of a person under eighteen years of age at the time of first enrollment in an institution of higher education in this state is that of the parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the legal residence of the father will control unless custody of the minor has been awarded by court to the mother or to a legal guardian other than a parent. No claim of residence in North Carolina based upon residence of a guardian in North Carolina will be considered if either parent is living unless the action of the court appointing the guardian antedates the student's first enrollment in a North Carolina institution of higher education by at least twelve months.

Adults

An adult is any person who has reached the age of eighteen years. Persons eighteen or more years of age at the time of first enrollment in an institution of higher education are responsible for establishing their own domicile. Persons reaching the age of eighteen, whose parents are and have been domiciled in North Carolina for at least the preceding twelve months, retain North Carolina residence for tuition payment purposes until domicile in North Carolina is abandoned. If North Carolina residence is abandoned by an adult, maintenance of North Carolina domicile for twelve months as a non-student is required to regain in-state status for tuition payment purposes.

Married Students

The legal residence of either husband or wife may be used for residence purposes to the advantage of each member of the family. Married couples should check with the residence classification officer at the college.

Military Personnel

No person shall lose in-state resident status by serving in the Armed Forces outside of the State of North Carolina. A member of the Armed Forces, the spouse, and the children may obtain in-state residence status after maintaining their domicile in North Carolina for at least the twelve months preceding enrollment or re-enrollment in an institution of higher education in this state.

Aliens

Aliens lawfully admitted to the United States for permanent residence may establish North Carolina residence in the same manner as any other nonresident.

Property and Taxes

Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate.

Change of Status

The residence status of any student is determined as of the time of the student's first enrollment in an institution of higher education in North Carolina except:

(a) In the case of a nonresident student at the time of first enrollment who has subsequently maintained domicile as a non-resident for at least twelve consecutive months and

(b) In the case of a resident who abandons the legal residence in North Carolina.

In either case, the appropriate tuition rate will become effective at the beginning of the first subsequent term enrolled.

Responsibility of Students

Any student or prospective student in doubt concerning residence status must bear the responsibility for securing a ruling by stating his/her case in writing to the registrar. The student who, due to subsequent events, becomes eligible for a change in classification, whether from out-of-state or the reverse, has the responsibility of immediately informing the dean of student development of the circumstances in writing. Failure to give complete and correct information regarding residence constitutes grounds for disciplinary action.

SPECIAL PROGRAMS

PRIME TIME: A PERSONAL GROWTH PROGRAM FOR WOMEN*

When there is sufficient interest, the college will offer a program known as PRIME TIME during fall quarter for the mature woman who wishes to return to school for self-improvement or for career training.

Three general courses will be scheduled between the hours of 10:00 a.m. and 2:00 p.m. on Mondays, Wednesdays, and Fridays. One of the courses will deal with life planning skills.

All students will remain together for three courses which cover an eleven-week period and end near the Thanksgiving holidays.

Prime Time is being offered as a one quarter introduction to the opportunities at the college and is scheduled so as to allow the woman who has school-aged children to come to class after the public school day begins and return home before it ends. Attending class only three days per week instead of five provides the new student a gradual entry into a new time schedule.

Persons who complete the Prime Time block of courses will receive eight hours of college credit which can be applied to many of the technical and college transfer curricula at the college.

After the program is completed, the student who wishes to return the following quarter has the option of choosing one of the regular career programs or of selecting random courses which might interest her.

Students who enroll must be high school graduates or hold the high school equivalency diploma. A minimum enrollment of twelve students will be necessary to ensure that the program will be held.

*Although Prime Time is especially for women, men will be welcomed in the program.

VETERANS

Curriculum courses offered by the institution are approved for veterans benefits. Any veteran or dependent who is eligible under provisions of Chapters 34 and 35, Title 38 and Public Law 894 and who has completed the admissions requirements for the school and has a transcript(s) of previous work on file can apply for educational assistance. Such application can be made in the office of the veterans coordinator and must include a copy of the veteran's discharge (DD-214). At registration, both veterans and dependents under Chapters 34, 35 are responsible directly to the school for payment of all costs. ALL WHO RECEIVE VETERANS FINANCIAL ASSISTANCE are further responsible for becoming familiar with specific VA regulations concerning monthly attendance reports, satisfactory conduct and academic progress requirements, and the use of the curriculum check sheet to ensure appropriate selection of courses. This information is available from the coordinator.

Children of disabled or deceased veterans may be eligible to receive financial assistance for tuition and fees. For information regarding eligibility, students should contact the local veterans service officer.

STANDARDS OF PROGRESS, ATTENDANCE, AND CONDUCT FOR VETERANS AND OTHER ELIGIBLE PERSONS CERTIFIED TO THE VETERANS ADMINISTRATION FOR EDUCATIONAL PAYMENTS UNDER PUBLIC LAW 93-508.

(Adapted for the catalog; copies of original document are available from veterans coordinator)

1. Determination of academic progress: All students enrolled in a credit program will be graded by the following letter-grade system and assigned a grade point equivalent.

Numerical Equivalent	**Letter Grade**	**Grade Point Average**
93-100	A-Excellent	4.00
85-92	B-Good	3.00
77-84	C-Average	2.00
70-76	D-Below Average	1.00
Below 70	F-Unsatisfactory	0

I—Indicates failure to complete certain course requirements
W—Student withdrew from course

A veteran may not a second time be certified for pay purposes for any course on which he/she has made an "I" grade. (Also, should the "I" not be completed in a given time—coordinator will have details—money received for the course during the quarter will be considered as overpayment until such time as credit grade is received. Coordinator must be notified of the grade change so that appropriate forms can be sent to VA.) Repeat of the "F" grade will influence the overall GPA for veterans since both the original grade and the repeat must be counted.

The following accumulated grade point average for total hours attempted is considered evidence of satisfactory academic progress:

Quarter Hours Attempted to Date	**Grade Points Awarded**
12	1.00
24	1.25
36	1.50
48	1.75
Graduation*	2.00

*Graduation will be determined (1) when the veteran completes all requirements and is in fact eligible for the diploma/degree with 2.00 GPA or better or (2) when the veteran completes the number of hours for his/her program and cannot graduate because the GPA is below 2.00. Should this occur, the veteran will be terminated for benefits (he/she may remain in school) until such time as the VA sees fit to approve recertification. An accumulation of 13 credit hours of "F" grades will result in termination of benefits until VA approves re-enrollment.

Each veteran's grades are checked each quarter. Any who fail to maintain the above averages will be placed on academic probation for the next quarter of attendance and will be notified by mail of the probation. Should a notice not reach a veteran, this in no way cancels the probation period. Once grades are out, each student should be aware of his/her academic progress or lack of it.

Veterans who make an "I" grade on 100% of their courses in a given quarter or withdraw from all courses will be considered in academic difficulty and will be placed on probation for the next quarter of attendance.

Veterans with satisfactory progress who show a marked decline in academic achievement in a following quarter will be placed on probation for the next quarter without regard to the overall GPA. The higher average of previous work will not be computed with the low average—the quarter of marked decline will stand alone.

At the end of the one quarter probation period, all who then meet the satisfactory progress test will be removed from probation. Those who do not meet the requirements will be terminated, for pay purposes, to the regional VA office; he/she may be re-instated for benefits (1) after appropriate academic progress is made and/or (2) after VA counseling.

Should academic progress be unsatisfactory at the time a veteran requests a "change of program," benefits will be interrupted until VA counseling can be scheduled and approval reaches the school.

The official copy of quarter grades for veterans and non-veterans is kept in the registrar's office; a second copy is mailed to each student and a third copy is provided to the veterans coordinator for the purpose of determining progress.

Neither probation nor termination of educational benefits affects the veteran's eligibility to continue enrollment at CCC & TI.

2. Attendance: The school operates within the framework of the NC

Department of Community Colleges' attendance policy; therefore, it makes no provision for free "cuts." Each instructor decides when the excessive absence point has been reached and provides the registrar with the names of those students involved. Instructors can initiate withdrawal forms for any student who, in their determination, has jeopardized his/her chance for passing the course because of poor attendance.

All veterans, including those working on the high school equivalency, are required to file instructor-signed monthly attendance sheets showing absences. The sheet must be filed with the coordinator no later than the 10th calendar day of the following month.

All absences of veterans enrolled in either vocational or high school equivalency programs are reported to the VA. ("Absences" include both days missed for personal reasons as well as those days missed because the institution is closed for quarter breaks, etc. The coordinator has a list of the non-operating days that are considered as absences.)

Veterans will be terminated to the regional VA office by the coordinator for the following attendance-related reasons: (1) Excessive absences resulting in instructor initiated withdrawal, (2) veteran's official withdrawal, (3) registrar's report that veteran is no longer attending or (4) veteran's failure to provide the attendance sheet by date stated above.

Veterans who are terminated for absences during any part of the term may not be re-instated for pay purposes until the beginning of the next term unless there are extenuating circumstances beyond the control of the veteran.

Dropping classes after the quarter begins will often result in either a revision of certification or termination of benefits. Any change in hours MUST be reported to both the registrar and the coordinator.

3. Determination of appropriate courses: Only courses listed in the catalog under the specific curriculum can be certified to the VA. Each veteran must file a check sheet with the coordinator who lists the quarter the course is taken and later adds the grade received. All veterans must check with the coordinator at each registration so that certifications, as well as the check sheets, can be updated.
4. Conduct: The same conduct regulations apply to all students. All behavior which is prohibited by federal, state, and local laws is prohibited on campus. Violations could result in dismissal of any student from school and in termination of benefits for veterans. Re-instatement of benefits would depend upon (1) re-admittance of persons to the school, and (2) recommendation of the VA after counseling.
5. Advancement lab requirements: When a veteran enrolls in the high school equivalency program, he/she is informed (1) that the coordinator must have on file a transcript of previous work prior to certification, (2) that a weekly progress review will be made and (3) that, based upon placement inventories, grade completed in public school, time elapsed since last school, etc., he/she should complete the work in a certain period of time. At the first sign of unsatisfactory progress, the veteran is scheduled for a conference with the lab advisor. Should unsatisfactory progress continue after several such conferences, the advisor will

notify the coordinator who will terminate benefits until such time as a sufficient percent of acceptable work is completed to put the veteran back on the time schedule. The probation period is considered to be the time between the first unsatisfactory progress conference and the time the coordinator is notified.

Unsatisfactory attendance is determined by the lab advisor. Written notice, along with last date of attendance, is sent to the coordinator who terminates the veteran to the VA.

All veterans attending the advancement lab are advised to report for the hours scheduled on their certifications or run the risk of being counted absent even though they may be making up time at other hours. The coordinator can supply additional information on this matter.

CCC & TI is currently approved for a maximum of 700 hours for the completion of the high school diploma. This does not guarantee that all persons will be allowed the full 700 hours. What it does mean is that each will have the length of time needed up to that number of hours.

Official institutional credit class schedules are published four times per year for the degree/diploma programs. The advancement lab schedule for the high school equivalency program remains constant: the lab is open Monday through Thursday, except for school holiday, from 8:00 a.m.-9:00 p.m. and on Friday from 8:00 a.m.-5:00 p.m. Persons wishing to enroll in the equivalency program may do so at any time.

NOTE: Veterans need to be aware that VA regulations are constantly being revised and expanded. The office of the veterans coordinator will attempt to keep all information current and will have updated material available for distribution.

FINANCIAL AID FOR STUDENTS

GENERAL INFORMATION

Caldwell Community College and Technical Institute encourages prospective students who desire to enroll but face difficult financial problems to apply to the student aid committee through the financial aid officer. The committee is concerned not only with the awarding of scholarships but also with awarding work study grants and loans. Within the limited funds available for these purposes, every effort is made by the college to help students who need monetary assistance.

Financial need is determined through analysis of a Family Financial Statement of the American College Testing Service prepared by the student and parents or guardian. Analysis of the family's financial situation indicates the family's ability to contribute toward educational expenses. Most financial aid is based on need rather than scholastic record. Financial need is the difference in the total educational expenses and what the family can afford to contribute.

There are three types of student financial aid: gift assistance, student loans, and work. Gift assistance includes grants and scholarships—awards that do not have to be repaid. Loans and work are self-help. Loans are usually paid back after enrollment is terminated. Work enables students to pay part of their expenses through their own earnings.

APPLICATION PROCEDURE

Students who are entering Caldwell Community College and Technical Institute for the first time and are in need of financial aid are requested to follow this pattern of application procedure:

1. After application for admission has been initiated (see "Admissions"), write to the financial aid officer and outline needs for financial aid. Instructions for applying will be sent to the applicant. Whenever possible, the student should request the application in person. It is to the student's advantage to apply as early as possible for financial assistance.
2. The student who desires to apply for financial assistance must file a Family Financial Statement from the American College Testing Service and must apply for a Basic Education Opportunity Grant. These forms are available from the financial aid officer.
3. Report for a personal interview when designated.
4. After determination of the scholarship, loan, grant, or work-study award, the recipient will then be notified by letter.

TYPES OF AID AVAILABLE

Applicants may apply for a scholarship, grant, loan, work-study, or any combination of these. The total combined sum of these must not exceed total need.

In the event that a student receiving aid withdraws from the institution, the student will be responsible for repayment of a prorated amount of any portion of payments which were extended to that student for living expenses and which would no longer be attributed to meeting expenses related to attendance.

The student has the obligation to maintain the "academic standards of progress" as defined by this institution. Failure to maintain academic progress will result in the loss of eligibility for financial aid. Eligibility for aid may be regained by reestablishing academic progress. These regulations are especially applicable to recipients of financial aid from federally sponsored programs.

I. FEDERALLY SPONSORED PROGRAMS

Basic Educational Opportunity Grant

The Basic Educational Opportunity Grant program is designed to provide financial assistance to those who need it to attend post-high school educational institutions. The amount of the Basic Grant is determined on the basis of the student's and his/her family's financial resources. To be eligible for this program, a student must be older than the compulsory age of secondary school attendance and must not already have a baccalaureate degree.

The Basic Educational Opportunity Grant Award is a grant and, unlike a loan, does not have to be repaid. Every student who is applying for financial aid at Caldwell Community College and Technical Institute must apply for the BEOG. Applications may be obtained from high schools, public buildings, or from the office of financial aid at this institution.

National Direct Student Loan Program

This is a federal loan through which students may borrow funds to complete their education if they are enrolled in a vocational program or if they have completed less than two years of a program leading to a bachelor's degree. Repayment begins nine months after the student graduates or leaves school for other reasons. The loan recipient may be allowed up to ten years to pay back the loan. During the repayment period three percent interest will be charged on the unpaid balance of the loan principal. No payments are required for up to three years while a person serves in the Armed Forces, Peace Corps, or VISTA.

Supplemental Educational Opportunity Grant (SEOG) Program

This program of direct grants of financial aid is for students of exceptional financial need who without the grant would be unable to continue their education.

Guaranteed Student Loan Program

This program enables the student to borrow directly from a bank, credit union, savings and loan association, or other participating lender who is willing to make the educational loan. The loan is guaranteed by a state or private nonprofit agency or insured by the federal government.

To apply for the federal interest benefits, students must submit to the lender a recommendation from their school as to the amount they need to meet educational expenses. If they qualify for these benefits the federal government will pay the interest until repayment of the principal must begin. Payments begin between nine and twelve months after the student graduates or leaves school. Up to ten years may be allowed to complete repayment. A person does not have to make payments for up to three years while serving in the Armed Forces, Peace Corps, or VISTA, or for any time the person returns to full-time study.

College Work-Study Program

Caldwell Community College and Technical Institute participates in the college work-study program which provides on-campus work opportunity for students needing financial assistance to attend school. Work is available for students to assist in the library, faculty and administrative offices, laboratories, shops, and building maintenance. Students working under this program are paid in cash monthly for the work performed. In arranging a job and determining how many hours a week a student may work under this program, the financial aid officer will take into account the student's (1) need for financial assistance; (2) class schedule; and (3) health and academic progress.

Nursing Student Loan and Scholarship Programs

These programs are administered by the Bureau of Health Manpower Education, National Institutes of Health. Funds are available to students who establish financial need and who are enrolled in the diploma or the degree program of nursing.

The nursing student loan is repayable at three percent interest. Repayment may be extended over a period up to ten years.

The nursing scholarship program is available to students in good academic standing who establish exceptional financial need. The funds are used as gift assistance and do not have to be repaid.

II. STATE SUPPORTED PROGRAMS

North Carolina State Student Incentive Grant

Legal residents of North Carolina who are enrolled full time and maintaining academic progress may apply for the NCSSIG. Students must demonstrate "substantial financial need."

The NCSSIG program is administered in North Carolina by the College Foundation, Inc. Application procedures include the filing of a needs analysis system, either the Financial Aid Form of the College Scholarship Service or the Family Financial Statement of the American College Testing Service. Details of the application process are available from high school guidance counselors and from the financial aid officer.

North Carolina Prospective Teacher Scholarship Loan

This scholarship provides financial assistance toward completing programs of study in preparation for teaching. These scholarships are available to North Carolina residents of high scholastic ability and teaching aptitude.

Scholarships are to be repaid by teaching in the public schools of North Carolina for a period of three, four or five years, according to the amount of the scholarship received, or in cash at five percent interest.

Applications which are available in January of each year, may be obtained either from the high school guidance counselor or from the financial aid officer at Caldwell Community College and Technical Institute.

Scholarship-Loan Fund for Prospective Teachers of the Mentally Retarded

This scholarship-loan is awarded to college students desiring to teach the mentally retarded. The recipient of the loan receives an amount determined by the State Department of Public Instruction per academic year if the student is enrolled full-time in an accredited college or university of North Carolina and is a resident of North Carolina. After the student's graduation, the interest on the unpaid balance shall be paid at the rate of four percent per annum, beginning September 1 following the graduation date. Applications should be submitted to the State Superintendent of Public Instruction in Raleigh on forms supplied by that office. The recipient will be obligated to teach in the North Carolina public schools or in a public resident institution for mentally retarded children for one year for each year he/she received aid. Applications may be obtained either from high school guidance counselors or from the financial aid officer at Caldwell Community College and Technical Institute.

North Carolina Department of Human Resources Loan

This loan, in the amount of $1500, is available to students in the associate degree of nursing program. Repayment may be made by service. A needs analysis is necessary. Application should be made in January directly to the Department of Human Resources, Raleigh, NC. Further information is available from the financial aid officer.

III. LOCALLY SUPPORTED PROGRAMS

The institution currently offers several scholarships and loan programs. The sources of these scholarships (clubs, individuals, industries, businesses, foundations, etc.) determine what critiera are to be used in awarding them.

Scholarships and loans available as of the printing of this publication are:

Dr. Caroline McNairy Scholarship Fund

This memorial scholarship fund was established in 1969 to be awarded to deserving practical nursing students, radiologic technology students, and medical executive secretarial students.

Alpha Delta Kappa Memorial Scholarship

This academic scholarship was established by the Alpha Delta Kappa Sorority. The recipients are to be pre-teaching students who have completed at least 45 credit hours while maintaining an overall average of at least 3.0. Scholarship, leadership, and maturity will be considered. The award is made in the fall of the year. Applications are available from the financial aid officer.

Mu Alpha Theta Scholarship

This fund was established by the Hudson High School math fraternity.

Northwestern Bank Scholarship

Established in 1970, this is a perpetual fund given by the local directors of Northwestern Bank whose personal contributions are matched by the bank.

C.W. Porter Scholarship

This memorial scholarship was established in 1971 by the friends of the late C.W. "Soup" Porter. It had initial contributions from 26 individuals and businesses totaling over $5,000.00. Contributions to this fund are accepted at any time.

Student Government Scholarship

This scholarship awards $100 to both a male and a female student for their outstanding contributions to student activities.

Rotary Club Nursing Scholarship/Loan

The Lenoir Rotary Club has designated that recipients of this fund be enrolled in the associate degree of nursing program. The recipient may renew for the second year of the program. Repayment may be made in cash or by working as a nurse in Caldwell County.

Blue Ridge Electric Membership Corporation Scholarship

This fund was established in September, 1973 to assist in meeting the educational needs of students.

Broyhill Foundation Scholarship

The Broyhill Foundation contributes $1,000.00 each year to maintain a scholarship fund to be used to aid students in continuing their education.

M.L. DeVane Scholarship

The Ebony Kinship Club of CCC & TI established this fund in 1975 to aid a student enrolling full-time at this institution. It was further stipulated that the recipient have completed 45 credit hours while maintaining an overall average of 2.5 or higher.

Granite Savings and Loan Association Scholarship

The board of directors of the Association voted in April, 1974 to establish this scholarship fund. An award is to be made to a graduate of South Caldwell High School. The student selected must be enrolled or accepted for enrollment in either a vocational or technical program.

Caldwell Medical Society Loan Fund

In the spring of 1974, the Caldwell Medical Society established a loan fund which would be available to students in the health related programs at Caldwell Community College and Technical Institute. The amount borrowed by the student would depend on financial need. The student must repay the loan at a low interest rate. Payments would begin after graduation or upon withdrawal from school.

Caldwell Medical Society Auxiliary Scholarship

Established in 1975, this scholarship has been designated by the Caldwell

Medical Society Auxiliary to be used to aid a student enrolled in nursing training who would otherwise be unable to attend school.

Altrusa Club Scholarship

This fund was established by the Altrusa Club of Caldwell County in 1975 to aid students over 25 years of age who are residents of Caldwell County and who are returning to school to pursue career training.

Rufus C. Gwyn Memorial Scholarship Fund

Each year the faculty of the college awards a scholarship to a student who is graduating from CCC & TI and whose intentions are to further his/her education. The scholarship is paid to the institution where the student is enrolled. Nominations may be made by faculty, staff, community, and students.

Those making nominations and the committee selecting the recipient of the scholarship will consider:

1. integrity, the nominee's wisdom, concern for others, and humility
2. desire to continue education
3. need
4. capability to succeed in the area in which the student is to enroll.

North Carolina Electric Membership Corporation Scholarship

The N.C.E.M.C. donated funds in 1977 to establish this scholarship to assist deserving students.

Emory C. McCall Scholarship

This memorial scholarship was established as a perpetual fund in 1976 by the friends of the late Emory C. McCall. It has initial contributions from over 85 individuals and businesses totaling over $10,000.

Carl Prestwood Scholarship

The family and friends of the late Carl Prestwood established this memorial fund in 1976 to be used as scholarships for deserving students. Initial contributions totaled approximately $2500.

Marian Alma Coffey Memorial Scholarship

The family and friends of the late "Mac" Coffey, who was a student at CCC & TI in recreational leadership, established this memorial scholarship to be used for second-year students enrolled in the recreational leadership program.

Carrie Peters Memorial Scholarship

This fund was established in 1976 by the family and friends of Carrie Peters to be used to aid deserving students.

Lenoir Woman's Club Past-Presidents Scholarship

This fund, honoring the past presidents of the Lenoir Woman's Club, was established by that organization in 1978. The recipient must be a needy student with academic promise who is a resident of Caldwell County.

Addie B. Flowers Scholarship Fund

Established in 1978 as a memorial to the late Ms. Flowers, this fund has been designated to aid students in Caldwell County in need of financial assistance.

Lenoir Kiwanis Club Scholarship

This fund is provided by the Lenoir Kiwanis Club to aid needy students.

North Carolina Association Of Supervisors Of Elections Scholarship

The association has provided funds to aid North Carolina residents who demonstrate financial need.

Wilford Randolph McGowan Scholarship

Established in 1978 as a memorial to Randy McGowan by his friends and family, this fund is to be used for residents of Caldwell and contiguous counties. It is to be based on need and academic promise.

Harold Coffey Memorial Scholarship

The Coffey Foundation established this scholarship fund in 1978 as a memorial to Mr. Coffey. Its recipients are to be needy residents of Caldwell and contiguous counties.

Gerald Haan Scholarship

This fund was established in 1977 by the fellow workers of Gerald Haan to help needy students.

Western North Carolina Lung Association Scholarship

The association has provided funds to be used for a deserving nursing student.

Lenoir Lions Club Health Care Scholarship

The Lenoir Lions Club provides funds to aid needy students in the nursing, radiology, and recreational leadership programs.

E.E. Stafford Scholarship

This fund was established in 1979 by the Lenoir Civitan Club to aid a needy Caldwell County native.

Vester Corpening Scholarship

Established in 1980 by the Ebony Kinship Club, this memorial fund will aid needy students from Caldwell County.

Robin Triplett Scholarship

The Triplett family has requested that this memorial scholarship be used to aid a needy, handicapped student.

IV. FOUNDATIONS

Many students who enroll at Caldwell Community College and Technical Institute receive financial assistance from private foundations. Some of this assistance is in the form of gifts and scholarships. Other students are able to borrow funds from these foundations to continue their education.

C.L. Robbins Foundation

Students enrolling at Caldwell Community College and Technical Institute are eligible to apply for financial assistance through the Robbins Foundation. Applications are reviewed by the college's financial aid committee of the Robbins Foundation.

Applications may be secured from the financial aid officer at Caldwell Community College and Technical Institute or from the Foundation.

College Foundation Loan

North Carolina residents may apply for a guaranteed loan through the College Foundation. Applicants must be enrolled full time and be in good academic standing. Loans may not exceed the total cost of education less other financial aid received. The amount of the loan is determined by the Foundation after consideration of the school's recommendation. Borrowers who are determined to be eligible may have the interest on the loan paid by the federal government during the enrollment, grace, and deferment periods. After graduation or upon withdrawal from school, the borrower then assumes the full seven percent interest on the balance of the loan.

V. OTHER AGENCIES AND RESOURCES

Caldwell Community College and Technical Institute serves as a referral and information agency for the following resources:

1. Veterans benefits
2. Social Security Agency
3. Vocational Rehabilitation Agency
4. Department of Social Services
5. Various other North Carolina agencies

STUDENT DEVELOPMENT

GENERAL PHILOSOPHY

The philosophy of the student development division reflects the stated mission, purpose, and philosophy of the institution, which is the total development of students. The division takes an active role in providing opportunities for mutual problem solving, developing relevant experiences, and promoting a general atmosphere in which students may develop their full potential as human beings.

COUNSELING

Opportunities for counseling are made available to all students enrolled in the college. Information and counseling are available to assist students in various areas, such as admissions, course and program selection, financial aid, personal and social problems, career selection, job placement, study habits, college transfer, veterans' information, and human development courses.

ORIENTATION

New students are expected to participate in an orientation program designed to promote a more rapid adjustment to the institution. The orientation programs are usually held in late summer or early fall of each year.

HOUSING

The college does not have housing facilities, but students are generally able to locate satisfactory housing in the area. It is important that both students and landlords have a complete understanding of rental conditions so that there will be no misunderstandings concerning such details.

TRANSPORTATION

The college provides no transportation service for students. There are no buses or other forms of public transportation, so students must have their own forms of transportation and/or participate in car pools.

CAREER INFORMATION/COUNSELING

During spring quarter 1980, Caldwell Community College and Technical Institute became one of twenty-seven demonstration sites for CHOICES. CHOICES is a career information system that uses a computer terminal to provide accurate, up-to-date information about occupations, training requirements, and job opportunities available in North Carolina. A career counselor is available to assist in the use of the computer and in interpreting the information CHOICES provides. Appointments for use of CHOICES can be made by contacting the student development secretary. CHOICES is available from 8:30 a.m. to 4:00 p.m., Monday through Friday.

STUDENT/ALUMNI JOB PLACEMENT

The placement of students and alumni in jobs is a function of the student development division. A career counselor seeks available job listings from local employers, and students and alumni are encouraged to register and confer with this office in their search for meaningful employment.

STUDENT CONDUCT AND RESPONSIBILITIES

It is expected that students will conduct themselves as responsible adults, thus obeying all federal, state, and local laws as well as specific college regulations. The board of trustees retains the right to pass certain regulations governing the conduct of students on campus and at college-sponsored events. Specific information regarding these regulations is found in the student handbook. Students may be dismissed whose conduct violates these laws or regulations or whose conduct is considered incompatible with the purposes of the college. THEREFORE, ALL STUDENTS ARE HEREBY GIVEN NOTICE TO EXAMINE THE STUDENT HANDBOOK PRIOR TO ADMISSION AND TO UNDERSTAND ITS CONTENTS. Copies of the handbook are available in the student development office.

STUDENT GRIEVANCE PROCEDURE

Procedures have been established for students to follow when or if they feel they have been treated unjustly or in a discriminatory manner. Both informal and formal grievance procedures are described in the student handbook under the heading, "Grievance Procedures."

STUDENT ACTIVITIES AND ORGANIZATIONS

STUDENT GOVERNMENT ASSOCIATION

The student government association is composed of all students who enroll in curriculum programs at the college. Officers and senators are elected each year to serve the student body in promoting various activities and opportunities for out-of-class learning, social contacts, entertainment, and self-governance. The elected officers and senators strive to promote the general welfare of the students in a democratic fashion.

A copy of the student government constitution may be found in the student handbook.

CLUBS AND ORGANIZATIONS

Various clubs and organizations have been developed by students at the college:

Departmental/Subject Related Clubs
- Cosmetology Club
- Recreation Therapy Club
- Nursing Club
- Sigma Tau Omega (Radiology)
- Lambda Mu Society (Library Technology)
- Early Childhood Club

General Interest Clubs
- Ebony Kinship
- Art Society
- Chess Club
- Photography Club
- Veterans Club
- Circle K

Any group of students may create a new club by following the steps outlined in the student government constitution in the student handbook.

ATHLETICS

The college is a member of the National Junior College Athletic Association and the Western Tarheel Conference and participates in intercollegiate golf, tennis, and basketball. Both men and women participate on the same golf and tennis teams, and the men and women have separate basketball teams. The school colors are blue and white and the mascot is the Cavalier.

Students interested in any of these sports should contact the various athletic coaches in the faculty office area.

INTRAMURALS

Various intramural sports opportunities are available for students, faculty, and staff at the college. Volleyball, chess, tennis, ping pong, shuffleboard, badminton, basketball, pickleball, and frisbie football are among the intramural offerings during each year.

Students interested in participating should contact the intramural coordinator in the faculty office area and watch for announcements on the intramural bulletin board in the student lounge.

STUDENT ACTIVITIES

Personal and social development is as important a part of education as academic improvement, and the college is committed to providing various student activities on campus to encourage development in these areas. In order to finance these activities, a student activity fee of $1.00 per course (up to a maximum of $5) is charged each student. The fee is used to support such activities and organizations as the following: campus clubs; dances; cook-outs; picnics; intercollegiate athletics; intramurals; purchase and maintenance of the television set, pool tables, and related equipment; student government activities; scholarships; trophies; speakers; film series; a variety of cultural programs; skiing excursions; and a variety of miscellaneous activities. Students who wish to initiate new activities should contact the student government association office for assistance.

LEARNING RESOURCE CENTER

The purpose of the Caldwell Community College and Technical Institute learning resource center is to support the established objectives of the total educational program through a collection of print and non-print media and audiovisual equipment, orientation and references services, and audiovisual and reprographic production.

Students are encouraged to look upon the LRC as an extension of their classroom instruction. The LRC has study stations and resources to support study and provide for recreational reading, listening, and viewing. In addition, the LRC staff are always ready to be of assistance.

LIFE SKILLS CENTER

The life skills center is a newly designed department devoted to assisting students in academic and personal matters, thus enabling them to move through their college experience successfully. The center is presently scattered throughout the campus, but will be brought together upon the completion of a new building by the fall of 1982.

Among the areas which are a part of the center are:

- Advancement Lab
- Reading Lab
- Testing Lab
- Selected Developmental Courses
- Human Resources Development
- High School Diploma and Adult Basic Education
- Various Student Services

Faculty and staff who are associated with the center are interested in the student's success and wish to do their part toward a productive experience at CCC & TI.

TESTING CENTER

Caldwell Community College and Technical Institute follows an "open door" policy and does not impose restrictive standards for admission to the institution. A student's capabilities do have to be determined, thereby, helping to eliminate the failure factor which leads to low self-esteem, lack of confidence, discouragement, and eventual withdrawal from school. Placement inventories are used for this purpose.

The testing center makes available to students, at no cost, tests which measure aptitude, personality, achievement, and vocational interest.

The testing center provides proper evaluation and control of all psychological tests.

PROGRAMS OF STUDY

SPECIAL CODING SYSTEM

F	Course will be offered FALL QUARTER.
W	Course will be offered WINTER QUARTER.
S	Course will be offered SPRING QUARTER.
SS	Course will be offered SUMMER QUARTER.
D	Course will be offered when sufficient students and instructor are available.

The numbers to the right of the course title represent the following: class, lab, credit. For example:

	Class	Lab	Quarter Hour Credit
ENG 203 English Literature	3	0	3

In order to determine contact hours, add class hours plus lab hours.

For example:	Class	Lab	Quarter Hour Credit
ART 120 Ceramics	2	2	3

Two class hours plus 2 lab hours equals 4 contact hours.

Where no prerequisite is listed, none is required.

OCCUPATIONAL DIPLOMA PROGRAMS

Diploma programs are designed to prepare persons for trade level occupations. Emphasis is given to the development of manipulative skills. Caldwell Community College and Technical Institute offers the following diploma programs:

AUTO BODY REPAIR
AUTOMOTIVE MECHANICS
COSMETOLOGY
ELECTRICAL INSTALLATION AND MAINTENANCE
ELECTRONIC DATA SYSTEMS+
FURNITURE PRODUCTION TECHNOLOGY+
MACHINE SHOP
MECHANICAL DRAFTING+
NURSING—ASSOCIATE DEGREE+
PLASTICS+*
TOOL AND DIE
UPHOLSTERY, CUTTING, SEWING*
WELDING

+Diploma options
*Approved but not offered in 1981-82.

AUTOMOTIVE BODY REPAIR (V-001)

CAREER INFORMATION

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, estimate, repair, and paint automobile bodies. Manual skills are developed in practical shop work. The study of automobile bodies, the stresses of metal, and the composition of paint constitute the curriculum.

Complexity in automobile vehicles increases each year because of scientific discovery and new engineering. The changes are reflected not only in passenger vehicles, but also in trucks, buses, and a variety of motor vehicles. This curriculum provides a basis for the student to compare and adapt to new techniques and new tools for repairing motor vehicle bodies.

Basic hand tools are required. Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
AUB	1101	Auto Body I	4	12	8
WLD	1101	Auto Body Welding I	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Personal Development	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17
WINTER QUARTER					
AUB	1102	Auto Body II	4	12	8
WLD	1130	Auto Body Welding II	1	3	2
BUS	1103	Small Business Operation	3	0	3
PHY	1101A	Automotive Applied Science	2	2	3
			10	17	16
SPRING QUARTER					
AUB	1103	Auto Body III	4	12	8
DFT	112	Auto Body Drafting Interpretation	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
AUB	1104	Auto Body IV	4	12	8
AUB	1105	Auto Body Shop Application	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

AUTO BODY REPAIR

*Part-time Curriculum**

AUB	1101-1	Auto Body Repair I	2-6-4
AUB	1101-2	Auto Body Repair I	2-6-4
AUB	1102-1	Auto Body Repair II	2-6-4
AUB	1102-2	Auto Body Repair II	2-6-4
AUB	1103-1	Auto Body Repair III	2-6-4
AUB	1103-2	Auto Body Repair III	2-6-4
AUB	1104-1	Auto Body Repair IV	2-6-4
AUB	1104-2	Auto Body Repair IV	2-6-4
AUB	1105-1	Auto Body Shop Applications	1-3-2
AUB	1105-2	Auto Body Shop Applications	1-3-2
AUB	1105-3	Auto Body Shop Applications	1-3-2
AHR	1101-1	Automotive Air Conditioning	3-0-3
AHR	1101-2	Automotive Air Conditioning	0-3-1
BUS	1103	Small Business Operations	3-0-3
DFT	113	Auto Body Drafting Interpretation	1-3-2
ENG	1102	Communication Skills	3-0-3
MAT	1101	Fundamentals of Math	3-0-3
PHY	1101A	Automotive Applied Science	2-2-3
PSY	101	Personal Development	1-2-2
RDG	092	Reading	1-3-2
WLD	1101	Auto Body Welding I	1-3-2
WLD	1130	Auto Body Welding II	1-3-2

*Usually evenings.

AUTOMOTIVE MECHANICS (V-003)

CAREER INFORMATION

Automotive mechanics diagnose, maintain, and repair mechanical, electrical, and other component parts of passenger cars, trucks, and buses. In some communities and rural areas they also may repair body parts, service tractors, marine engines, and other types of equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They use shop manuals and other technical publications to assist in analysis, disassembly, and identification of component parts.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work, such as repairing only electrical components, power steering, power brakes, or automatic transmissions. Usually, such specialists have had "all-round" training in general automotive repair.

Basic hand tools are required. Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
AUM	1101	Automotive Mechanics I	4	12	8
DFT	110	Mechanics Drafting Interpretation I	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Personal Development	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17
WINTER QUARTER					
AUM	1102	Automotive Mechanics II	4	12	8
DFT	111	Mechanics Drafting Interpretation II	1	3	2
BUS	1103	Small Business Operations	3	0	3
PHY	1101A	Automotive Applied Science	2	2	3
			10	17	16
SPRING QUARTER					
AUM	1103	Automotive Mechanics III	4	12	8
WLD	1129	Basic Welding	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
AUM	1104	Automotive Mechanics IV	4	12	8
AUM	1105	Automotive Servicing	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

AUTOMOTIVE MECHANICS

*Part-time Curriculum**

AHR	1101-1	Automotive Air Conditioning	3-0-3
AHR	1101-2	Automotive Air Conditioning	0-3-1
AUM	1101-1	Automotive Mechanics I	2-6-4
AUM	1101-2	Automotive Mechanics I	2-6-4
AUM	1102-1	Automotive Mechanics II	2-6-4
AUM	1102-2	Automotive Mechanics II	2-6-4
AUM	1103-1	Automotive Mechanics III	2-6-4
AUM	1103-2	Automotive Mechanics III	2-6-4
AUM	1104-1	Automotive Mechanics IV	2-6-4
AUM	1104-2	Automotive Mechanics IV	2-6-4
AUM	1105-1	Automotive Servicing	1-3-2
AUM	1105-2	Automotive Servicing	1-3-2
BUS	1103	Small Business Operations	3-0-3
DFT	110	Mechanics Drafting Interpretation I	1-3-2
DFT	111	Mechanics Drafting Interpretation II	1-3-2
ENG	1102	Communications Skills	3-0-3
MAT	1101	Fundamentals of Math	3-0-3
PHY	1101A	Automotive Applied Science	2-2-3
PSY	101	Personal Development	1-2-2
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	1-3-2

*Usually evenings.

ADVANCED AUTOMOTIVE OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
PME	1202	Auto Electrical Electronics	4	9	7
PME	1203	Automotive Engine Tune-up	4	9	7
Elective			1	3	2
			9	21	16
WINTER QUARTER					
PME	1221	Front Suspension, Alignment and Power Steering	1	3	2
PME	1224	Advanced Automatic Transmissions	3	12	7
PME	1226	Automobile Servicing II	2	9	5
			6	24	14

ADVANCED IMPORTED CAR OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
T-MAT	201	Math Decimal-Metric Conversion	3	0	3
AUT	1145	Transaxle Operation and Repair	3	9	6
AUT	1146	The Air Cooled Engine	2	6	4
AUT	1147	Imported Car Carburetion	2	6	4
			10	21	17
WINTER QUARTER					
AUT	1150	Imported Car Valve Trains	2	6	4
AUT	1154	The Wankel Engine	3	9	6
AUT	1158	Front Wheel Drive Systems	2	6	4
Elective					
			7	21	14

COSMETOLOGY (V-009)

CAREER INFORMATION

Today the cosmetologist is called upon to advise men and women on problems of makeup, diet, and care of the hair, skin, and hands, including the nails. Cosmetology has become a science consisting of the use of cosmetics based on scientific principles. The cosmetology curriculum is designed to prepare the student for employment in the field of cosmetology. The curriculum provides instruction and practice in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair shaping, and styling. This curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

The first quarter of instruction consists of an introduction to cosmetology, including the fundamentals of ethics, history, theory, and practice. The class activities include practical lessons, lectures, demonstrations, and student practice on wefts or mannequins.

The second quarter of instruction places more emphasis on manipulative skills. The acquisition of correct habits and skills is stressed. Practical work is done almost exclusively on patrons and models.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
COS	1001	Scientific Study I	4	6	6
COS	1011	Mannequin Practice	1	18	7
			5	24	13

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
COS	1002	Scientific Study II	5	0	5
ENG	1102	Communication Skills	3	0	3
COS	1022	Clinical Application I	0	24	8
			8	24	16
SPRING QUARTER					
COS	1003	Scientific Study III	5	0	5
COS	1033	Clinical Application II	0	24	8
			5	24	13
SUMMER QUARTER					
COS	1004	Scientific Study IV	5	0	5
COS	1044	Clinical Application III	0	24	8
			5	24	13
		TOTAL HOURS	23	96	55
FALL QUARTER*					
COS	1005	Public Relations for Cosmetologists	3	0	3
COS	1006	Beauty Salon Business Operations	3	0	3
COS	1055	Chemistry Relating to Cosmetology	3	0	3
COS	1066	Hairstyling II	1	18	7
			10	18	16

*NOTE: The North Carolina State Board of Cosmetic Art has approved two options for the student of cosmetology to become state licensed:

1. Successfully complete 1200 school hours and work a six-month apprenticeship under a licensed cosmetologist after passing the North Carolina State Board examination or
2. Successfully complete 1500 school hours (substituting 300 hours for the apprenticeship) and pass the North Carolina State Board examination to become a licensed cosmetologist.

The additional courses have been added for the student who chooses the 1500 hour option. These are more advanced courses which will better prepare the student to become a licensed cosmetologist.

COSMETOLOGY

*Part-time Curriculum**

COS	1001	Scientific Study I	4-6-6
COS	1002	Scientific Study II	5-0-5
COS	1003	Scientific Study III	5-0-5
COS	1004	Scientific Study IV	5-0-5
COS	1011	Mannequin Practice	1-18-7
COS	1022-1	Clinical Application I	0-6-2
COS	1022-2	Clinical Application I	0-18-6

COS	1033-1	Clinical Application II	0-15-5
COS	1033-2	Clinical Application II	5-0-5
COS	1044-1	Clinical Application III	0-3-1
COS	1044-2	Clinical Application III	0-21-7
ENG	1102	English Composition	3-0-3

*Usually evenings.

DRAFTING—MECHANICAL (V-017)

(DIPLOMA OPTION)

CAREER INFORMATION

This curriculum is designed to prepare students to enter the field of mechanical drafting. The first two quarters contain courses basic to all fields of drafting. The third and fourth quarters contain specialization and related courses that prepare one to enter mechanical drafting occupations. Each course is prepared to enable an individual to advance.

A mechanical draftsman performs the general duties of a draftsman and also specializes in making rough freehand and mechanical drafting sketches of proposed mechanical devices, drawing the necessary details. The mechanical draftsman also prepares accurate scale drawings of parts of machines from specifications.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
MAT	1101	Fundamentals of Math	3	0	3
MEC	101	Machine Processes	1	5	3
WLD	1129	Basic Welding	1	3	2
DFT	101	Technical Drafting	2	8	5
			8	19	15

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
MAT	1102	Algebra	5	0	5
PHY	1101	Applied Science	2	2	3
MEC	102	Machine Processes	1	5	3
DFT	102	Technical Drafting	2	9	5
			10	16	16
SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
MAT	1104	Trigonometry	3	0	3
MEC	122	Production Procedures	4	3	5
PHY	1102	Applied Science	2	2	3
DFT	103	Technical Drafting	2	9	5
			14	14	19
SUMMER QUARTER					
MEC	205	Strength of Materials	3	2	4
MEC	210	Physical Metallurgy	3	3	4
DFT	201	Technical Drafting	3	9	6
DFT	204	Descriptive Geometry	2	4	4
			11	18	18
		TOTAL HOURS	43	67	68

ELECTRICAL INSTALLATION AND MAINTENANCE (V-018)

CAREER INFORMATION

A student will have acquired a basic knowledge of the National Electrical Code as it pertains to wiring design, wiring methods, materials, and equipment for general uses. He/she will also develop skill in using electrical prints, trouble-shooting, electrical controls, and the repair of electrical and electronic equipment and will acquire a basic knowledge of business procedures and organization.

Within four to six years after completion of this course and with dedication to one's work, the student can become a highly skilled electrician craftsman in this area.

On the completion of the electrical installation and maintenance course, one would be prepared to enter into the electrical field as an assistant electrician in either of two general areas:

(1) Construction—including new wiring and rewiring of residential, commercial, and industrial buildings.

(2) Maintenance—including installation and maintenance of motors, motor controls, and industrial electronics.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
MAT	1115	Electrical Math	5	0	5
PSY	206	Interpersonal Skills	3	0	3
DFT	110	Blueprint Reading: Building Trades	0	3	1
ELC	1112	Direct and Alternating Current	4	12	8
			13	18	19
WINTER QUARTER					
ENG	1102	Communication Skills	3	0	3
PHY	1101	Applied Science	2	2	3
DFT	113	Blueprint Reading: Mechanical	0	3	1
ELC	1113	Alternating Current and Direct Current and Machines and Controls	4	12	8
			9	17	15
SPRING QUARTER					
PHY	1102	Applied Science	2	2	3
ELC	1124	Residential Wiring	5	9	8
ELC	1125	Commercial and Industrial Wiring	2	9	5
			9	20	16
SUMMER QUARTER					
BUS	1103	Small Business Operations	3	0	3
ELN	1118	Industrial Electronics Fundamentals	4	9	7
ELN	1119	Industrial Electronics Controls	4	12	8
			11	21	18
		TOTAL HOURS	42	76	68

ELECTRONIC DATA SYSTEMS (T-022)

(DIPLOMA OPTION)

CAREER INFORMATION

Data systems specialists often are called upon to perform many varied tasks in a computer center. They are required frequently to operate and program the computer system. They may be members of a programming team with the responsibility for preparing programs for computer solution through a joint effort. They may be asked to transform the general requirements of accountants, business managers, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals data systems specialists may be required to update, revise, correct, and write programs as the needs of management dictate.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
BUS	110	Office Machines	2	2	3
BUS	120	Principles of Accounting	3	2	4
EDP	101	Computers and Programming I	4	4	6
			12	10	16
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	121	Principles of Accounting	3	2	4
MAT	110	Business Math	5	0	5
EDP	102	Computers and Programming II	4	4	6
			15	6	18
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BUS	122	Principles of Accounting	3	2	4
EDP	103	Computers and Programming III	4	4	6
BUS	101	Introduction to Business	5	0	5
			15	6	18
SUMMER QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
EDP	214	Practicum I	0	15	5
EDP	208	Systems & Orientation	4	4	6
			7	19	14
		TOTAL HOURS	49	41	66

FURNITURE PRODUCTION ASSISTANT (V-040)

(DIPLOMA OPTION)

CAREER INFORMATION

This curriculum was developed by the furniture industry advisory committee and this college with the primary purpose of better performance on the job. This would include people who have furniture production jobs who want to improve themselves, as well as people without jobs who want to become qualified for jobs in the furniture industry.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
PSY	206	Interpersonal Skills	3	0	3
T-MAT	100	Mathematics	3	0	3
DFT	101F	Technical Drafting	2	6	4
FUR	104	Characteristics of Wood	3	0	3
FUR	108	Production Equipment I	4	0	4
			15	6	17
WINTER QUARTER					
DFT	102F	Technical Drafting	2	6	4
FUR	102	Construction and Billing I	1	3	2
FUR	109	Production Equipment II	4	0	4
FUR	112	Routing, Scheduling, and Process	2	2	3
			9	11	13
SPRING QUARTER					
ISC	102	Industrial Safety	3	0	3
ISC	203	Motion Study	2	2	3
FUR	103	Construction and Billing II	1	3	2
FUR	106	Abrasive Materials and Glues	2	2	3
ENG	1102	English Communication Skills	3	0	3
			11	7	14
SUMMER QUARTER					
BUS	285	Cost Records and Estimates	2	0	2
ISC	103	Production Control	1	3	2
ISC	201	Industrial Organization and Management	3	0	3
ISC	202	Quality Control	3	0	3
ISC	207	Foremanship Supervision	3	0	3
FUR	107	Finishing Methods and Material	2	2	3
			14	5	16
		TOTAL HOURS	49	29	60

MACHINE SHOP (V-032)

CAREER INFORMATION

The machine shop is the backbone of the industrial economy and requires a special skilled worker to perform the complex operations involved. The machinist is the skilled worker who shapes metal parts by using machine tools and proper total shop practice. Both training and work experience enables the machinist to plan and carry through the operations needed in turning out a machined product. A skilled machinist is able to: select the proper tools, materials, and methods required for each job; plan the cutting and finishing operations called for on the blueprint or written instructions; make most standard shop computations related to tooling, feeds, speeds, and dimensions of the work; use precision measuring instruments such as micrometers, vernier calipers, vernier height gages, and indicators to maintain accuracies of the work to, sometimes, within thousandths of an inch.

Skilled workers must be able to set up and operate most types of machine tools such as drill presses, lathes, milling machines, boring machines, and grinders. In addition, a machinist also spends time setting up and operating some more productive machines such as numerical tape controlled machines, turret lathes, and automatic screw machines and becomes familiar with the composition of metals so as to be able to select, heat treat, and quench parts to improve their mechanical properties.

Such a broad knowledge enables the skilled machinist to turn a piece of metal into an intricate precise final product.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
MAT	1101	Fundamentals of Math	3	0	3
DFT	113	Blueprint Reading: Mechanical	0	3	1
WLD	1129	Basic Welding	1	3	2
MEC	1101	Machine Shop Theory and Practice	4	12	8
			8	18	14
WINTER QUARTER					
RDG	092	Reading	1	3	2
MAT	1102	Algebra	5	0	5
DFT	114	Blueprint Reading: Mechanical	0	3	1
MEC	1102	Machine Shop Theory and Practice	4	12	8
			10	18	16
SPRING QUARTER					
MAT	1104	Trigonometry	3	0	3
DFT	115	Blueprint Reading: Mechanical	0	3	1
MEC	1103	Machine Shop Theory and Practice	4	12	8
MEC	1115	Treatment of Ferrous Metals	2	3	3
			9	18	15
SUMMER QUARTER					
MAT	1123	Math: Machinist	3	0	3
MEC	1104	Machine Shop Theory and Practice	3	12	7
MEC	1116	Treatment of Nonferrous Metals	2	3	3
MEC	1122	Production Procedures	4	3	5
			12	18	18
		TOTAL HOURS	39	72	63

MACHINE SHOP

*Part-time Curriculum**

DFT	113	Blueprint Reading: Mechanical	0-3-1
DFT	114	Blueprint Reading: Mechanical	0-3-1
DFT	115	Blueprint Reading: Mechanical	0-3-1
MAT	1101	Fundamentals of Math	3-0-3
MAT	1102	Algebra	5-0-5
MAT	1104	Trigonometry	3-0-3
MAT	1123	Math: Machinist	3-0-3
MEC	1101-1	Machine Shop Theory and Practice	2-6-4
MEC	1101-2	Machine Shop Theory and Practice	2-6-4
MEC	1102-1	Machine Shop Theory and Practice	2-6-4
MEC	1102-2	Machine Shop Theory and Practice	2-6-4
MEC	1103-1	Machine Shop Theory and Practice	2-6-4
MEC	1103-2	Machine Shop Theory and Practice	2-6-4
MEC	1104-1	Machine Shop Theory and Practice	2-6-4
MEC	1104-2	Machine Shop Theory and Practice	1-6-3
MEC	1115	Treatment of Ferrous Metals	2-3-3
MEC	1116	Treatment of Nonferrous Metals	2-3-3
MEC	1122	Production Processes	4-3-5
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	1-3-2

*Usually evenings.

NURSING—ASSOCIATE DEGREE (V-038)

(DIPLOMA OPTION)

CAREER INFORMATION

Graduates of accredited programs of nurse education are prepared to function as beginning practitioners in a variety of situations, including hospitals; nursing homes; clinics; doctors', dentists', and veterinarians' offices; industry; and in some instances, public health facilities.

A student enrolled in the associate degree nursing programs has career options at two points during the training. Upon successful completion of the first year, the student is prepared to practice as a practical nurse and is eligible for practical nurse licensing examinations. The student is also eligible to apply for the second year of the nursing program.

Upon successful completion of the second year, the student is prepared to practice with technical competence, is eligible for registered nurse licensing examinations, and qualifies for an associate degree in nursing. These examinations are administered by the North Carolina Board of Nursing and are given twice each year, in February and July.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the nursing program, see the student handbook or the college registrar.

FIRST LEVEL—PRACTICAL NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
BIO	130	Basic Life Science	4	2	5
PSY	201	General Psychology	3	0	3
NUR	101	Fundamentals of Nursing	6	6	9
NUR	102	Nutrition	3	0	3
			19	10	23
WINTER QUARTER					
PSY	210	Human Growth and Development	3	0	3
NUR	103	Pharmacology	3	0	3
NUR	104	Maternal-Infant Health I	4	0	4
NUR	105	Maternal-Infant Health I Lab	0	6	2
NUR	106	Child Health Nursing I	4	0	4
NUR	107	Child Health Nursing I Lab	0	6	2
			14	12	18
SPRING QUARTER					
SOC	201	Introduction to Sociology	3	0	3
NUR	108	Medical-Surgical I	8	0	8
NUR	109	Medical-Surgical I Lab	0	15	5
			11	15	16
SUMMER QUARTER					
NUR	110	Medical-Surgical II	6	0	6
NUR	111	Medical-Surgical II Lab	0	18	6
NUR	112	Seminar I	3	0	3
BIO	135	(Optional Elective)*			
			9	18	15
		TOTAL HOURS	53	55	72

*BIO 135 is required for entry into second-level nursing. This course is generally offered during the summer and fall quarters.

PLASTICS TECHNOLOGY (T-101)

(DIPLOMA OPTION)

CAREER INFORMATION

Upon completion of the one year diploma (four quarters) program, the graduate could operate as a junior product designer, an apprentice tool maker or designer, or a machine operator, inspector, or materials handler.

Upon completion of the second year technical program (seven quarters), the graduate could function in a supervisory capacity for the plastics industry.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
T-MAT	101	Technical Math	5	0	5
DFT	113	Blueprint Reading: Mechanical	0	3	1
ISC	102	Industrial Saftey	3	0	3
PLA	101	Introduction to Plastics	2	3	3
			11	9	14
WINTER QUARTER					
T-MAT	102	Technical Mathematics	5	0	5
DFT	115	Blueprint Reading: Mechanical	0	3	1
MEC	101	Machine Processes	1	5	3
MEC	217	Engineering Materials and Processing and Testing	3	3	4
PLA	105	Plastic Forming I	2	3	3
			11	14	16
SPRING QUARTER					
MEC	102	Machine Processes	1	5	3
MEC	235	Hydraulics and Pneumatics	3	3	4
PLA	106	Materials Compounding	3	2	4
PLA	107	Plastic Forming II	6	6	8
			13	16	19
SUMMER QUARTER					
ELC	101	Basic Electricity	2	3	3
MEC	103	Machine Processes	1	5	3
PLA	117	Plastic Forming III	3	6	5
PLA	118	Fabricating, Lam., Finishing	3	0	3
PLA	135	Physical Properties of Plastics	2	3	3
			11	17	17
		TOTAL HOURS	46	56	66

TOOL AND DIE (V-048)

CAREER INFORMATION

The tool and die maker provides the foundation of many industries. This individual is highly skilled and possesses a tremendous depth of technical knowledge. This curriculum is designed to start an advanced machinist into the elementary requirements of tool and die making and progress into more complex dies, jigs and fixtures, gages, and other areas.

The program will enable the advanced machinist to compare the machines found in a tool and die shop with those found in the average machine shop. Each student will be required to become highly proficient in the use of the machines used in tool and die making. The related courses are designed to give the student an opportunity to advance knowledge in mathematics, strength of materials, drafting, and hydraulics and pneumatics.

Occupational opportunities are found in metal-working industries, job shops, captive tool rooms, maintenance shops, and a wide variety of other industries using tools, dies, and jigs and fixtures for repetitive production products.

To be eligible for the tool and die program, the student must have completed the machine shop curriculum or have equivalent work experience.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
DFT	1207	Machine Drafting	1	5	3
MAT	1201	Trigonometry	5	0	5
MEC	1201	Machine Processes	3	12	7
			9	17	16
WINTER QUARTER					
MEC	1202	Machine Processes	3	12	7
MEC	1210	Metallurgy	2	3	3
MAT	1202	Uses of Handbook	3	0	3
MEC	1207	Toolmaking	3	3	4
SPRING QUARTER					
MEC	1203	Machine Processes	3	12	7
DFT	1216	Blueprint Reading	0	3	1
MEC	1205	Strength of Material	2	3	3
MEC	1235	Hydraulics and Pneumatics	2	3	3
			7	21	14
SUMMER QUARTER					
MEC	1204	Machine Processes	3	12	7
MEC	1299	Special Problems (Tools and Molds)	3	6	5
MEC	1214	Tool Design and Planning	2	3	3
			8	21	15
		TOTAL HOURS	35	77	62

UPHOLSTERING (V-082)

CAREER INFORMATION

Upholstering offers both men and women excellent employment opportunities in industry or for self-employment. It is among the most skilled and better paying occupations in the furniture industry. The primary emphasis in the program is upon actual practical experience in the springing up, covering, trimming, cutting, and sewing phases of upholstery. Emphasis throughout is placed upon quality and the development of production speed.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
UPH	1111	Upholstery Materials and Methods I	1	11	5
WINTER QUARTER					
UPH	1112	Upholstery Materials and Methods II	1	11	5
SPRING QUARTER					
UPH	1113	Upholstery Materials and Methods III	1	11	5
SUMMER QUARTER					
UPH	1114	Upholstery Sewing I	1	11	5
FALL QUARTER					
UPH	1115	Upholstery Sewing II	1	11	5
WINTER QUARTER					
UPH	1116	Upholstery Cutting I	1	11	5
SPRING QUARTER					
UPH	1117	Upholstery Cutting II	1	11	5
		TOTAL HOURS	7	77	35

WELDING (V-050)

CAREER INFORMATION

The principal duty of the welder who uses manual techniques is to control the fusion of metals by directing the heat from either an electric arc or gas welding torch and to add filler metal where necessary to complete the joint. Welders should possess a great deal of manipulative skill with a knowledge of jigs, mathematics, basic metallurgy, and blueprint reading.

A well-trained welder may find employment in many different industries. Shipbuilding, automotive, aircraft, guided missiles, railroad, tank construction, and pipe fitting industries are examples of manufacturing concerns which employ welders.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
WLD	1120	Welding Theory and Practice	3	12	7
RDG	092	Reading	1	3	2
DFT	113	Blueprint Reading: Mechanical	0	3	1
MEC	1117	Basic Metals Identification	1	2	2
WLD	1112	Welding Inspection and Codes	3	0	3
			8	20	15
WINTER QUARTER					
WLD	1121	Welding Theory and Practice	2	18	8
DFT	120	Blueprint Reading: Welding	0	3	1
ENG	1102	Communication Skills	3	0	3
MAT	1101W	Practical Math for Welders	5	0	5
			10	21	17

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
WLD	1123-1	Inert Gas Welding I (TIG)	2	6	4
WLD	1124	Pipe Welding	3	12	7
DFT	121	Pattern Development and Sketching	0	3	1
PHY	1101W	Applied Science	2	2	3
			7	23	15
SUMMER QUARTER					
WLD	1122	Commercial and Industrial Practices	3	9	6
WLD	1125	Certification Practices	3	6	5
WLD	1123-2	Inert Gas Welding II (MIG)	2	6	4
BUS	1103	Small Business Operations	3	0	3
			11	21	18
		TOTAL HOURS	36	85	65

WELDING

*Part-time Curriculum**

BUS	1103	Small Business Operations	3-0-3
DFT	113	Blueprint Reading: Mechanical	3-0-3
DFT	120	Blueprint Reading: Welding	0-3-1
DFT	121	Pattern Devel. & Sketching	0-3-1
ENG	1102	Communications Skills	3-0-3
MAT	1101W	Practical Math for Welders	5-0-5
MEC	1117	Basic Metals Identification	1-2-2
PHY	1101W	Applied Science	2-2-3
RDG	092	Reading	1-3-2
WLD	1112	Welding Inspection & Codes	3-0-3
WLD	1120-1	Welding Theory & Practice	2-6-4
WLD	1120-2	Welding Theory & Practice	1-6-3
WLD	1121-1	Welding Theory & Practice	1-6-3
WLD	1121-2	Welding Theory & Practice	1-6-3
WLD	1121-3	Welding Theory & Practice	0-6-2
WLD	1122-1	Commercial & Industrial Pr.	2-6-4
WLD	1122-2	Commercial & Industrial Pr.	1-3-2
WLD	1123-1	Inert Gas I	2-6-4
WLD	1123-2	Inert Gas II	2-6-4
WLD	1124-1	Pipe Welding	2-6-4
WLD	1124-2	Pipe Welding	1-6-3
WLD	1125	Certification Practices	3-6-5

*Usually evenings.

OCCUPATIONAL ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS

The associate in applied science degree programs are designed to prepare persons for technician level occupations. More emphasis is given to theory than in diploma courses. Also, roughly one-half of the course requirements are in general education and the sciences underlying the particular occupational area. Caldwell Community College and Technical Institute offers the following associate in applied science degree programs:

- BIOMEDICAL ELECTRONICS TECHNOLOGY
- BUSINESS ADMINISTRATION
  - Pre-financial Management/Accounting Option
  - Industrial Management Option
  - Personnel Administration Option
  - Business Management Option
- DRAFTING AND DESIGN TECHNOLOGY
- EARLY CHILDHOOD EDUCATION
- ELECTRONIC DATA SYSTEMS
- FURNITURE PRODUCTION TECHNOLOGY
- INDUSTRIAL MAINTENANCE ENGINEERING
- LIBRARY MEDIA TECHNICAL ASSISTANT
- NUCLEAR MEDICINE TECHNOLOGY
- NURSING—ASSOCIATE DEGREE
- OCCUPATIONAL THERAPY ASSISTANT
- PLASTICS TECHNOLOGY*
- PUBLIC ADMINISTRATION
- RADIOLOGIC TECHNOLOGY
- RECREATION LEADERSHIP (Therapeutic and Community)
- SECRETARIAL SCIENCE
  - Executive Secretary Option
  - Medical Secretary Option

*Approved but not offered in 1981-82.

BIOMEDICAL ELECTRONICS TECHNOLOGY (T-158)

CAREER INFORMATION

Because of the physician's increased use of complex equipment for diagnosis, regulation of body functions, and monitoring and reading of patient problems and progress, well trained persons are needed for medical equipment maintenance and repair. A biomedical technician must be able to install, operate, repair, and maintain electronic equipment such as x-ray machines, incubators, electronic thermometers, pacemakers, radio frequency surgical devices, cardiac pressure monitors, sterilizers, operating room lamps and tables, automatic culture counters, and pulmonary equipment. The biomedical technician may also be called upon to maintain or make emergency repairs on surgical equipment in the hospital operating room, to instruct hospital personnel in the safe and correct use of equipment, and to be involved in evaluation and testing of new electromedical devices.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ELC	112	Alternating and Direct Current	2	6	4
T-MAT	101	Technical Math	5	0	5
ENG	101	Grammar and Composition	3	2	3
PHY	101	Physics: Properties of Matter	3	2	4
			13	10	16
WINTER QUARTER					
ELN	124	Electronics Fundamentals	2	4	4
ENG	102	English Composition	3	0	3
T-MAT	102	Technical Math	5	0	5
PHY	102	Physics: Work, Energy, Power	3	2	4
			13	6	16
SPRING QUARTER					
ELN	134	Intermediate Electronics	2	4	4
T-MAT	103	Technical Math	5	0	5
MEC	235	Hydraulics and Pneumatics	3	3	4
ENG	104	Report Writing	3	0	3
			13	7	16
SUMMER QUARTER					
ELN	224	Advanced Electronics	2	4	4
BIO	130	Basic Life Science	4	2	5
ELN	234	Digital Electronics	2	4	4
BMT	254	Biomedical Instrumentation I	2	4	4
			10	14	17
FALL QUARTER					
BIO	208	Introduction to Study of Diseases	3	0	3
BMT	264	Biomedical Instrumentation II	2	4	4
BMT	274	X-Ray and Nuclear Medicine	2	4	4
BMT	201	Medical Institutions	3	0	3
Elective			3	0	3
			13	8	17
WINTER QUARTER					
BMT	271	Biomedical Instrumentation III	2	4	4
BMT	244	Safety Inspections and Standards	2	4	4
BMT	280	Medical Circuit Troubleshooting	2	4	4
Elective			3	0	3
			9	12	15
SPRING QUARTER					
BMT	228	Practicum	0	39	13
		TOTAL HOURS	71	96	110

BUSINESS ADMINISTRATION (T-018)

CAREER INFORMATION

The graduate of the business administration curriculum may enter a variety of career opportunities from beginning office clerk to management trainee. The duties and responsibilities of the graduate vary in different firms. Positions are potentially available in business, accounting, advertising, banking, credit, finance, retailing, wholesaling, hotel, tourism, industry, transportation, and communications.

Through the department of business administration, students may obtain majors in general business, financial management/accounting, personnel management, and industrial management.

Reading level of 12.0 or RDG 101 required for graduation.

INDUSTRIAL MANAGEMENT OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
BUS	120	Principles of Accounting	3	2	4
			18	7	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Communication	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	3	2	4
			17	4	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	3	2	4
BUS	272	Principles of Supervision	3	0	3
			15	4	17
FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
PSY	201	General Psychology	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BUS	225	Cost Accounting	3	2	4
BUS	233	Personnel Management	3	0	3
			15	2	16

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
PSY	206	Interpersonal Skills	3	0	3
ISC	102	Industrial Safety	3	0	3
BUS	285	Cost Records and Estimates	2	0	2
Elective			3	0	3
Elective			3	0	3
			14	0	14
SPRING QUARTER					
ECO	204	Industrial Relations	3	0	3
ISC	202	Quality Control	3	0	3
BUS	235	Business Management	3	0	3
ISC	103	Production Control	1	3	2
Elective			3	0	3
			13	3	14
		TOTAL HOURS	92	20	100

FINANCIAL MANAGEMENT/ACCOUNTING OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
BUS	120	Principles of Accounting	3	2	4
			18	7	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Communication	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	3	2	4
			17	4	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	3	2	4
BUS	272	Principles of Supervision	3	0	3
			15	4	17

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
PSY	201	General Psychology	3	0	3
BUS	220	Intermediate Accounting	3	2	4
BUS	225	Cost Accounting	3	2	4
BUS	275	Programming	3	0	3
Elective			3	0	3
			18	4	20
WINTER QUARTER					
ECO	202	Principles of Economics II	3	0	3
SOC	201	Introduction to Sociology	3	0	3
BUS	219	Credit Procedures	3	0	3
BUS	221	Intermediate Accounting II	3	2	4
BUS	229	Taxes I	3	2	4
			15	4	17
SPRING QUARTER					
SOC	203	Contemp. Problems and Social Issues	3	0	3
BUS	222	Intermediate Accounting III	3	2	4
BUS	230	Taxes II	3	2	4
BUS	269	Auditing	3	2	4
BUS	276	Money and Banking	3	0	3
Elective			3	0	3
			18	6	21
		TOTAL HOURS	101	29	114

PERSONNEL ADMINISTRATION OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
BUS	120	Principles of Accounting	3	2	4
			18	4	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Communication	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	3	2	4
			17	4	19

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	3	2	4
BUS	272	Principles of Supervision	3	0	3
			15	4	17
FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
PSY	201	General Psychology	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BUS	123	Business Finance	3	0	3
BUS	233	Personnel Management	3	0	3
Elective			3	0	3
			18	0	18
WINTER QUARTER					
ECO	202	Principles of Economics II	3	0	3
PSY	202	General Psychology	3	0	3
SOC	201	Introduction to Sociology	3	0	3
BUS	124	Business Finance	3	0	3
Elective			3	0	3
			15	0	15
SPRING QUARTER					
ECO	204	Industrial Relations	3	0	3
PSY	206	Interpersonal Skills	3	0	3
SOC	203	Contemp. Problems and Social Issues	3	0	3
BUS	235	Business Management	3	0	3
BUS	271	Office Management	3	0	3
ISC	102	Industrial Safety	3	0	3
			18	0	18
		TOTAL HOURS	101	12	107

BUSINESS MANAGEMENT OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
BUS	120	Principles of Accounting	3	2	4
			18	7	20

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Communication	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	3	2	4
			17	4	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	3	2	4
BUS	272	Principles of Supervision	3	0	3
			15	4	17
FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BUS	123	Business Finance	3	0	3
BUS	239	Marketing	5	0	5
BUS	243	Advertising	3	2	4
			17	2	18
WINTER QUARTER					
ECO	202	Principles of Economics II	3	0	3
BUS	124	Business Finance	3	0	3
BUS	219	Credit Procedures	3	0	3
BUS	229	Taxes I	3	2	4
Elective			3	0	3
			15	2	16
SPRING QUARTER					
BUS	232	Sales Development	3	0	3
BUS	235	Business Management	3	0	3
BUS	247	Business Insurance	3	0	3
BUS	276	Money and Banking	3	0	3
Elective			3	0	3
			15	0	15
		TOTAL HOURS	97	19	105

DRAFTING AND DESIGN TECHNOLOGY (T-043)

(DEGREE OPTION)

CAREER INFORMATION

This curriculum is designed to prepare a graduate to enter the world of work in the mechanical drafting field.

Upon completion of the first four quarters, students will be prepared to enter the field on the trade level. Students will study basic drafting in the first two quarters. From there they will go into the mechanical specialities for the remaining two quarters.

Related courses are offered in a sequential manner to enable students to progress in a chronological order according to the building method from basics to the advanced.

The person completing the course of study will be expected to communicate with people in architecture, mechanical engineering, mechanical drafting, tool and die making, skilled positions, unskilled positions, selling, or construction.

A person need not have a high school diploma in order to enter this course and receive a diploma. However, persons planning to continue for the fifth and sixth quarters and receive an A.A.S. degree must have a high school diploma or successfully pass the high school proficiency.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
T-MAT	101	Technical Math	5	0	5
PHY	101	Physics: Properties of Matter	3	2	4
DFT	101	Technical Drafting	2	8	5
MEC	101	Machine Processes	1	5	3
			14	17	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
T-MAT	102	Technical Math	5	0	5
PHY	102	Physics: Work, Energy, Power	3	2	4
DFT	102	Technical Drafting	2	8	5
MEC	102	Machine Processes	1	5	3
			14	15	20
SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
T-MAT	103	Technical Math	5	0	5
PHY	103	Physics: Electricity	3	2	4
PHY	106	Applied Mechanics	5	0	5
DFT	103	Technical Drafting	2	9	5
			18	11	22
FALL QUARTER					
DFT	201	Technical Drafting	3	9	6
DFT	204	Descriptive Geometry	2	4	4
MEC	205	Strength of Materials	3	2	4
MEC	210	Physical Metallurgy	3	3	4
			11	18	18

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
DFT	205	Design Drafting I	2	8	5
DFT	211	Mechanisms	3	2	4
MEC	211	Physical Metallurgy	3	3	4
WLD	101	Welding Practices	3	0	3
Elective			3	0	3
			14	13	19
SPRING QUARTER					
DFT	206	Design Drafting II	2	8	5
MEC	235	Hydraulics and Pneumatics	3	3	4
Elective			3	0	3
Elective			3	0	3
Elective			3	0	3
			14	11	18
		TOTAL HOURS	85	85	117

EARLY CHILDHOOD EDUCATION (T-073)

CAREER INFORMATION

The early childhood specialist curriculum is designed to fill the need for aides and technicians in a variety of job situations. The curriculum is a technical program including courses designed to give a broad general education in human growth and development and experience working with preschool children. Students will be given the basic skills needed to be competent assistants in a childcare program or continue on to acquire skills to be paraprofessionals in a variety of child development institutions.

The responsibilities of the early childhood specialist as a paraprofessional are quite varied, requiring a person with good inter-personal skills and adaptability, as well as love for children, to function effectively in this position. The major function of the early childhood specialist is the care and guidance of young children. This includes a concern for the mental, social, physical, and emotional growth and development of the child. In a school or a child development center this may include outdoor play, storytelling, language and communication skills, experiences with music, art and dramatic activities, field trips, food preparation and service, and other routines.

Job titles vary with different agencies and schools. Some of the terms used are educational assistant, teacher aide, childcare worker, early childhood specialist, and auxiliary educational personnel. Still others use assistant teacher or just teacher. Jobs for early childhood education assistants are found in hospitals, institutions for exceptional children, 24-hour care units, Headstart programs, day care and child development centers, private or cooperative nurseries and pre-kindergarten programs, and private schools.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
SPH	100	Interpersonal Communication	3	0	3
MUS	110	Recreational Music	3	0	3
EDU	101	Child Growth and Development I	4	0	4
EDU	203	Health and Nutrition	3	0	3
ENG	101	Grammar and Composition	3	2	3
RDG	101	Developmental Reading II	1	3	2
			17	5	18
WINTER QUARTER					
ENG	102	English Composition	3	0	3
EDU	102	Child Growth and Development II	4	0	4
EDU	202	Preschool Education	3	0	3
PSY	206	Interpersonal Skills	3	0	3
PED	185	First Aid and Safety	3	0	3
EDU	111	Seminar and Practicum I	0	2	1
			16	2	17
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDM	206	Children's Literature	3	0	3
PED	101	Physical Activities for Young Children	3	2	3
EDU	112	Seminar and Practicum II	0	4	2
PSY	204	Child Behavior	3	0	3
EDU	103	Child Growth and Development III	4	0	4
			16	6	18
FALL QUARTER					
PSY	201	General Psychology	3	0	3
EDU	220	Methods I	3	0	3
ART	204	Art for the Preschool Child	2	2	3
SPH	101	Fundamentals of Speech	3	0	3
EDU	230	Seminar and Practicum III	0	6	3
			11	8	15
WINTER QUARTER					
EDU	231	Seminar and Practicum IV	0	8	4
EDU	221	Methods II	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
SOC	101	Community Resources	3	0	3
Elective			3	0	3
			12	8	16

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
EDU	232	Seminar and Practicum V	0	12	6
Elective			3	0	3
Elective			3	0	3
Elective			3	0	3
			9	12	15
		TOTAL HOURS	81	41	99

ELECTRONIC DATA SYSTEMS (T-022)

(DEGREE OPTION)

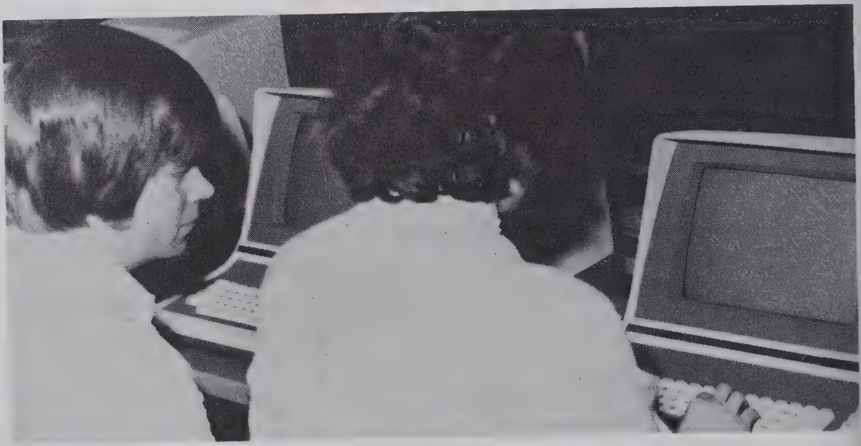
CAREER INFORMATION

Data systems specialists often are called upon to perform many varied tasks in a computer center. They are required frequently to operate and program the computer system. They may be a member of a programming team with the responsibility for preparing programs for computer solution through joint effort. They may be asked to transform the general requirements of accountants, business managers, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals data systems specialists may be required to update, revise, correct, and write programs as the needs of the management dictate.

Upon completion of the curriculum, the graduate is prepared to participate in several areas of an interesting and rewarding career.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
BUS	110	Office Machines	2	2	2
BUS	120	Principles of Accounting	3	2	4
EDP	101	Computers and Programming I	4	4	6
			13	10	16



		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
ENG	102	English Composition	3	0	3
MAT	110	Business Math	5	0	5
BUS	121	Principles of Accounting	3	2	4
EDP	102	Computers and Programming II	4	4	6
			15	6	18
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BUS	101	Introduction to Business	5	0	5
BUS	122	Principles of Accounting	3	2	4
EDP	103	Computers and Programming III	4	4	6
			15	6	18
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
MAT	214	Statistics	5	0	5
EDP	204	Computers and Programming IV	4	4	6
BUS	225	Cost Accounting	3	2	4
			15	6	18
WINTER QUARTER					
EDP	214	Practicum I	0	15	5
EDP	208	Systems Orientation	4	4	6
BUS	229	Taxes I	3	2	4
BUS	219	Credit Procedures	3	0	3
			10	21	18
SPRING QUARTER					
EDP	217	Data Processing Project	1	8	5
EDP	215	Practicum II	0	15	5
EDP	221	Programming & Lang. Survey	2	2	3
ISC	103	Production Control	1	3	2
			4	28	15
		TOTAL HOURS	72	77	103

FURNITURE PRODUCTION TECHNOLOGY (T-075)

(DEGREE OPTION)

CAREER INFORMATION

The graduate of this program may serve in many areas of the local furniture industry. These areas would include assistant to the plant manager, methods improvement, quality control inspector, cost estimator, product engineer trainee, production control trainee, material control supervisor, department supervisor, production scheduling and control, material testing, employee trainer, and industry safety.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	0	3
T-MAT	100	Mathematics	3	0	3
DFT	101F	Technical Drafting	2	6	4
FUR	104	Characteristics of Wood	3	0	3
FUR	108	Production Equipment I	4	0	4
			15	6	17
WINTER QUARTER					
DFT	102F	Technical Drafting	2	6	4
FUR	109	Production Equipment II	4	0	4
FUR	102	Construction & Billing I	1	3	2
FUR	112	Routing, Scheduling and Process	2	2	3
			9	11	13
SPRING QUARTER					
FUR	103	Construction & Billing II	1	3	2
FUR	106	Abrasive Materials & Glues	2	2	3
ISC	203	Motion Study	2	2	3
PSY	206	Interpersonal Skills	3	0	3
ISC	102	Industrial Safety	3	0	3
			11	7	14
SUMMER QUARTER					
BUS	285	Cost Records and Estimates	2	0	2
ISC	103	Production Control	1	3	2
ISC	201	Industrial Organization and Management	3	0	3
ISC	202	Quality Control	3	0	3
ISC	207	Foremanship Supervision	3	0	3
FUR	107	Finishing Methods and Material	2	2	3
			14	5	16
FALL QUARTER					
ENG	102	English Composition	3	0	3
DFT	103F	Technical Drafting	2	6	4
BUS	101	Introduction to Business	5	0	5
SPH	101	Fundamentals of Speech	3	0	3
			13	6	15
WINTER QUARTER					
BUS	272	Princ. of Supervision	3	0	3
ENG	104	Report Writing	3	0	3
ECO	201	Princ. of Economics I	3	0	3
Elective			3	0	3
			12	0	12

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
ISC	204	Value Analysis	3	0	3
Elective			3	0	3
Elective			3	0	3
Elective			3	0	3
			12	0	12
		TOTAL HOURS	86	35	99

INDUSTRIAL MAINTENANCE ENGINEER (T-119)

CAREER INFORMATION

As modern industry grows and becomes more sophisticated, there is an increasing demand for skilled personnel trained to install and maintain industrial, electrical, and mechanical equipment. Qualified industrial maintenance engineers are needed by industries and manufacturing companies to perform preventative maintenance and repair work on all types of electrical and mechanical equipment.

The first year of the industrial maintenance engineer program consists of a core of courses to provide the student with a general background in the understanding of electrical-mechanical systems and the practical application of skills needed in the field. Special emphasis is given to the use of blueprints and sketches, hand tools and metal-working machines, and measuring and testing instruments. During the second year, the program offers two options of specialization. The mechanical option includes a concentration of machine shop and related courses while the electrical option includes mostly electrical and electronics courses. Graduates of either option in the industrial maintenance engineering program receive an associate in applied science degree.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
T-MAT	101	Technical Mathematics	5	0	5
DFT	113	Blueprint Reading: Mechanical	0	3	1
ELC	100	Electronic Fundamentals: Survey	3	0	3
MEC	101	Machine Processes	1	5	3
ISC	102	Industrial Safety	3	0	3
			12	8	15
WINTER QUARTER					
T-MAT	102	Technical Mathematics (Algebra)	5	0	5
DFT	114	Blueprint Reading: Mechanical	0	3	1
ENG	101	Grammar	2	3	3
MEC	102	Machine Processes	1	5	3
PSY	101	Properties of Matter	3	2	4
			11	13	16

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
T-MAT	103	Technical Mathematics (Trigonometry)	5	0	5
DFT	119	Blueprint Reading: Electrical	0	3	1
ELC	112	AC/DC Theory	2	6	4
WLD	120	Welding, Oxyacetylene	1	3	2
PHY	102	Work, Energy, Power	3	2	4
			11	14	16
SUMMER QUARTER					
PHY	103	Physics: Electro/Mech.	3	2	4
ENG	102	Grammar and Composition	3	2	3
WLD	121	Arc Welding	1	3	2
ISC	205	Maintenance Management	3	0	3
MEC	235	Hydraulics and Pneumatics	3	3	4
			13	10	16

SECOND YEAR—ELECTRICAL OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
*MEC	237	Control Systems	3	3	4
*PSY	206	Interpersonal Skills	3	0	3
*AHR	101	Air Conditioning and Refrigeration	3	3	4
ELC	113	Industrial Electronic Controls	1	6	3
ELN	124	Electronics Fundamentals	2	4	4
			12	16	18
WINTER QUARTER					
*ENG	104	Report Writing	3	0	3
*ISC	202	Quality Control	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
ELC	119	AC/DC Machine Controls	2	6	4
ELN	134	Intermediate Electronics	2	4	4
			13	12	18
SPRING QUARTER					
ELC	115	National Electrical Code	3	0	3
ELC	121	Electrical Trouble Shooting	2	3	3
ELN	224	Advanced Electronics	2	4	4
ELN	234	Digital Electronics	2	4	4
			9	11	14
		TOTAL HOURS	81	85	113

*Course common to mechanical option.

SECOND YEAR—MECHANICAL OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
+MEC	237	Control Systems	3	3	4
+PSY	206	Interpersonal Skills	3	0	3
+AHR	101	Air Conditioning and Refrigeration	3	3	4
MEC	103	Machine Processes	1	6	3
MEC	210	Ferrous Metallurgy	3	3	4
			13	15	18
WINTER QUARTER					
+ENG	104	Report Writing	3	0	3
+ISC	202	Quality Control	3	0	3
MEC	114	Shop Practice	1	6	3
MEC	298	Mechanical Problem Solving	2	3	3
MEC	211	Non-Ferrous Metallurgy	3	3	4
			12	12	16
SPRING QUARTER					
DFT	115	Blueprint Reading: Mechanical	0	3	1
MEC	207	Tool Making	3	3	4
MEC	122	Production Procedures	4	3	5
MEC	299	General Maintenance and Repair	2	3	3
			9	12	13
		TOTAL HOURS	81	85	110

+Course common to electrical option.

LIBRARY MEDIA TECHNICAL ASSISTANT (T-080)

CAREER INFORMATION

Graduates from this program function in a supportive role, understand basic library organization, and accept the realities of library or media work under the general supervision of a librarian or media specialist. They may be expected to develop and maintain a working knowledge of policies, practices, and resources of any given library or information center. They have acquired a proficiency in production of instructional materials and the operation of equipment and its daily maintenance.

As assistants, graduates are not prepared to assume administrative or teaching responsibilities, but they do learn to use the basic terminology and to supervise technical and clerical aspects of all library procedures and routines. The occupational aspect of the program trains people for duties related to such functions as the mechanical preparation of library and audiovisual material; the physical maintenance of both print and non-print materials, files, and equipment; circulation work; acquisitions work; cataloging (except original cataloging); and work involving direct public assistance at information and ready-reference service desks.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
MAT	110	Business Math	5	0	5
BUS	102	Typewriting	2	3	3
EDM	101	Introduction to Libraries and Information Centers	3	0	3
Elective		(Social Science)	3	0	3
			16	5	17
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	103	Typewriting	2	3	3
EDM	103	Library-Media Resources (Ref.)	3	0	3
PSY	206	Interpersonal Skills	3	0	3
MUS	101	Music Appreciation	3	0	3
			14	3	15
SPRING QUARTER					
ENG	103	Introduction to Literature	3	0	3
EDP	104	Introduction to Data Processing	3	2	4
EDM	102	Library Processes I (Selection)	3	0	3
EDM	105	AV Equipment and Production	3	2	4
ART	101	Art Appreciation	3	0	3
			15	4	18
FALL QUARTER					
EDM	201	Library Processes II (Cataloging)	3	2	4
EDM	202	Library Media Procedures (Circulation)	3	2	4
BUS	120	Accounting	3	2	4
POL	203	Government—State and Local	3	0	3
Elective		(Humanities)	3	0	3
			15	6	18
WINTER QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
EDM	203	Practicum	2	6	4
Elective		(Humanities)	3	0	3
Elective		(Social Science)	3	0	3
Elective			3	0	3
			14	6	16
SPRING QUARTER					
GEO	202	Regional Geography	3	0	3
SCI	100	Natural Environment	3	0	3
EDM	204	Practicum	2	6	4
EDM	206	Survey of Children's Literature	3	0	3
Elective			3	0	3
			14	6	16
		TOTAL HOURS	88	30	100

NUCLEAR MEDICINE TECHNOLOGY (T-104)

CAREER INFORMATION

Since the field of nuclear medicine is developing so rapidly, there is a growing demand for well-trained, highly motivated, adaptable men and women in it.

Manpower studies indicate the need to train more than 1,000 additional technologists in the field each year, and this number may be even larger with the continuing development and application of nuclear medicine technology. The major trends in nuclear medicine which may affect the number of technologists needed over the next few years include the use of faster scanners and cameras for imaging procedures, increased number of dynamic function studies, the development of materials labeled with radionuclides with shorter half-lives, and the use of more complex radio-pharmaceuticals and more automated data-handling facilities, including computers.

With the increasing demand for nuclear medicine services, opportunities are available in large and small hospitals, both public and private. In addition, the armed forces both train and employ nuclear medicine technologists. Also, the growing number of NMT training programs in hospitals, community colleges, and technical institutes provide openings for instructors in nuclear medicine technology.

Graduates of the nuclear medicine technology program will receive an associate in applied science degree and will be eligible to take the national registry exam. Certified radiologic technologists, associate degree nurses, and medical technologists may enter the program as advanced students for a 12-month certificate course.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the nuclear medicine program, see the student handbook or the college registrar.

		COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER					
RDT	101	Introduction to Radiologic Technology	2	0	1
BIO	125	Terminology I	1	0	1
RDT	102	Basic Patient Care	3	3	4
RDT	103	Radiation Protection	1	0	1
			7	3	8
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
MAT	101	College Math	3	0	3
BIO	108	Human Anatomy and Physiology	3	2	4
CHM	101	General Chemistry I	3	3	4
NMT	101	Nuclear Medicine Technology I	1	0	1
BIO	126	Terminology II	1	0	1
			14	7	16

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
ENG	102	Composition	3	0	3
BIO	109	Human Anatomy and Physiology	3	2	4
CHM	102	General Chemistry II	3	3	4
PHY	107	Physics	3	2	4
NMT	102	Nuclear Medicine Technology II	1	0	1
BIO	208	Introduction to Study of Disease	3	0	3
			16	7	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
CHM	103	General Chemistry III	3	3	4
PHY	108	Physics	3	2	4
PSY	201	General Psychology	3	0	3
NMT	103	Nuclear Medicine Technology III	1	0	1
RDT	115	Radiographic Processing	2	0	2
			15	5	17
SUMMER QUARTER					
PED	185	First Aid and Safety	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BIO	209	Radiobiology	3	0	3
NMT	104	Nuclear Medicine Technology IV	2	0	2
NMT	129	Practicum I	0	12	4
			11	12	15
FALL QUARTER					
NMT	116	Nuclear Physics	2	0	2
NMT	269	Practicum II	0	24	8
NMT	111	Principles of Nuclear Medicine I	2	0	2
NMT	225	Introduction to Radioimmunoassay	1	2	2
NMT	268	Open Lab Practicum I	0	6	2
			5	32	16
WINTER QUARTER					
NMT	274	Practicum III	0	24	8
NMT	230	Nuclear Medicine Instrumentation I	3	2	4
NMT	221	Principles of Nuclear Medicine II	2	0	2
NMT	223	Radiopharmaceuticals I	2	0	2
NMT	117	Health Physics (Radiation Protection)	1	0	1
NMT	273	Open Lab Practicum II	0	6	2
			8	32	19

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
NMT	279	Practicum IV	0	24	8
NMT	240	Nuclear Medicine Instrumentation II	3	2	4
NMT	241	Principles of Nuclear Medicine III	2	0	2
NMT	233	Radiopharmaceuticals II	2	0	2
NMT	278	Open Lab Practicum III	0	6	2
			7	32	18
SUMMER QUARTER					
NMT	284	Practicum V	0	24	8
NMT	251	Principles of Nuclear Medicine IV	2	0	2
NMT	290	Nuclear Medicine Technology Seminar	2	0	2
NMT	283	Open Lab Practicum IV	0	6	2
			4	30	14
		TOTAL HOURS	87	160	142

NURSING—ASSOCIATE DEGREE (T-059)

(DEGREE OPTION)

CAREER INFORMATION

Graduates of accredited programs of nurse education are prepared to function as beginning practitioners in a variety of situations, including hospitals; nursing homes; clinics; doctors', dentists', and veterinarians' offices; industry; and in some instances, public health facilities.

A student enrolled in the associate degree nursing program has career options at two points during the training. Upon successful completion of the first year, the student is prepared to practice as a practical nurse and is eligible for practical nurse licensing examinations. The student is also eligible to apply for the second year of the nursing program.

Upon successful completion of the second year, the student is prepared to practice with technical competence, is eligible for registered nurse licensing examinations, and qualifies for an associate degree in nursing. These examinations are administered by the North Carolina Board of Nursing and are given twice each year, in February and July.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the nursing program, see the student handbook or the college registrar.

FIRST LEVEL—PRACTICAL NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
BIO	130	Basic Life Science	4	2	5
PSY	201	General Psychology	3	0	3
NUR	101	Fundamentals of Nursing	6	6	9
NUR	102	Nutrition	3	0	3
			19	10	23
WINTER QUARTER					
PSY	210	Human Growth and Development	3	0	3
NUR	103	Pharmacology	3	0	3
NUR	104	Maternal-Infant Health I	4	0	4
NUR	105	Maternal-Infant Health I Lab	0	6	2
NUR	106	Child Health Nursing I	4	0	4
NUR	107	Child Health Nursing I Lab	0	6	2
			14	12	18
SPRING QUARTER					
SOC	201	Introduction to Sociology	3	0	3
NUR	108	Medical-Surgical I	8	0	8
NUR	109	Medical-Surgical I Lab	0	15	5
			11	15	16
SUMMER QUARTER					
NUR	110	Medical-Surgical II	6	0	6
NUR	111	Medical-Surgical II Lab	0	18	6
NUR	112	Seminar I	3	0	3
BIO	135	(Optional Elective)*			
			9	18	15

*BIO 135 is required for entry into second level nursing. This course is generally offered during summer and fall quarters.

SECOND LEVEL—REGISTERED NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
BIO	108	Human Anatomy and Physiology I	3	2	4
NUR	200	Psychiatric Nursing	6	0	6
NUR	201	Psychiatric Nursing Lab	0	9	3
PSY	213	Abnormal Psychology	3	0	3
			12	11	16
SPRING QUARTER					
BIO	109	Human Anatomy and Physiology II	3	2	4
NUR	202	Maternal-Infant Health II	4	0	4
NUR	203	Maternal-Infant Health II Lab	0	6	2
NUR	204	Child Health Nursing II	4	0	4
NUR	205	Child Health Nursing II Lab	0	6	2
			11	14	16
SUMMER QUARTER					
ENG	102	English Composition	3	0	3
BIO	135	Microbiology	2	2	3
NUR	206	Medical-Surgical III	6	0	6
NUR	207	Medical-Surgical III Lab	0	15	5
			11	17	17
FALL QUARTER					
ENG	104*	Report Writing	3	0	3
NUR	208	Medical-Surgical IV	6	0	6
NUR	209	Medical-Surgical IV Lab	0	18	6
NUR	210	Seminar II	3	0	3
			12	18	18
		TOTAL HOURS	99	115	139

*ENG 103 may be substituted for ENG 104.

OCCUPATIONAL THERAPY ASSISTANT (T-142)

CAREER INFORMATION

Occupational therapy is a health profession providing services to people whose lives have been affected by impairment or pathology, such as cerebrovascular accident (stroke); arthritis; cerebral palsy; mental retardation; spinal cord injury; amputation; trauma; burns; visual, auditory, and speech disorders; or psychiatric problems. Occupational therapy serves in a variety of settings, including hospitals and clinics, rehabilitation facilities, long-term care facilities, sheltered workshops, day-care centers, schools, camps, private homes, and community agencies and centers.

The term "occupation" means being occupied in meaningful day-to-day activities including work, play, and leisure. Occupational therapy translates the ability to move into activities that are personally fulfilling.

The certified occupational therapy assistant (COTA) is one who has completed an occupational therapy assistant curriculum and passed national certification examination by the American Occupational Therapy Association. The occupational therapy assistant program at Caldwell Community College and Technical Institute consists of six quarters for a total of 112 quarter hours to receive an A.A.S. degree. The program provides excellent opportunity for employment as well as for continuing one's education in the field of occupational therapy.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the OTA program, see the student handbook, the college registrar, or the OTA coordinator.

		COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER					
OTA	101	Orientation to Prog. and Intro. to Occupational Therapy (Field Exp.)	0	6	2
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
PSY	201	General Psychology	3	0	3
BIO	108	Human Anatomy and Physiology I	3	2	4
ART	127	Arts and Crafts I	1	4	3
OTA	102	Occupational Therapy Theory I	3	1	3
			13	9	16
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BIO	109	Human Anatomy and Physiology II	3	2	4
PSY	210	Human Growth and Development	3	0	3
OTA	103	Major Crafts and Their Application	1	4	2
OTA	104	Occupational Therapy Theory II	3	1	3
PED	185	First Aid and Safety	3	0	3
			16	7	18

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
PSY	213	Abnormal Psychology	3	0	3
BIO	208	Introduction to Study of Disease	3	0	3
SOC	201	Introduction to Sociology	3	0	3
OTA	105	Occupational Therapy Theory III	3	1	3
Elective			3	0	3
			18	1	18
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
PED	212	Physiology of Muscular Exercise	3	2	4
		(Designated OTA Lab)	0	2	1
PSY	206	Interpersonal Skills	3	0	3
OTA	201	The Mature Years—Gerontology	3	3	4
Elective			3	0	3
			15	7	18
WINTER QUARTER					
PSY	215	Introduction to Exceptional Individual	3	0	3
REC	103	Recreation Programming	3	0	3
OTA	202	Treatment Methods for Neurological Problems	3	3	4
OTA	203	Occupational Therapy Theory IV	3	1	3
HEA	200	Allied Health Management Procedures	3	0	3
			15	4	16
SPRING QUARTER					
OTA	204	Occupational Therapy Fieldwork II	0	40	13
SUMMER QUARTER					
OTA	205	Occupational Therapy Fieldwork II (optional internship)	0	40	13
		TOTAL HOURS	77	108	112

PLASTICS TECHNOLOGY (T-101)

(DEGREE OPTION)

CAREER INFORMATION

Upon completion of the diploma program, the graduate could operate as a junior product designer, an apprentice tool maker or designer, machine operator, inspector, or materials handler.

Upon completion of the degree program, the graduate could function in a supervisory capacity for the plastics industry.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	100	Grammar	2	3	3
T-MAT	101	Technical Math	5	0	5
DFT	104	Blueprint Reading: Mechanical	0	3	1
PLA	101	Introduction to Plastics	2	3	3
ISC	102	Industrial Safety	3	0	3
			12	9	15
WINTER QUARTER					
T-MAT	102	Technical Math	5	0	5
DFT	105	Blueprint Reading & Sketching	0	3	1
MEC	101	Machine Processes	1	5	3
MEC	217	Engin. Materials & Proc. & Testing	3	3	4
PLA	105	Plastic Forming I	2	6	4
			11	17	17
SPRING QUARTER					
MEC	102	Machine Processes	1	5	3
MEC	235	Hydraulics & Pneumatics	3	3	4
PLA	106	Materials Compounding	3	2	4
PLA	107	Plastic Forming II	6	6	8
			13	16	19
FALL QUARTER					
ELC	101	Basic Electricity	2	3	3
MEC	103	Machine Processes	1	5	3
PLA	117	Plastics Forming III	3	6	5
PLA	118	Fabricating, Lamination, Finishing	3	0	3
PLA	135	Physical Properties of Plastics	2	3	3
			11	17	17
WINTER QUARTER					
ENG	101	Grammar & Composition	3	2	3
BUS	272	Principles of Supervision	3	0	3
MEC	210	Physical Metallurgy	3	3	4
PLA	219	Plastic Mold Design I	1	3	2
ISC	103	Production Control	1	3	2
Elective			3	0	3
			14	11	17
SPRING QUARTER					
ENG	102	English Composition	3	0	3
MEC	207	Tool Making	3	3	4
PLA	220	Mold Design II	2	6	4
ISC	201	Ind. Organ. & Management	3	0	3
Elective			3	0	3
			14	9	17

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
MEC	213	Production Planning	3	3	4
MEC	237	Control Systems	3	3	4
PLA	225	Practicum	0	6	2
Elective			3	0	3
			12	12	16
		TOTAL HOURS	87	91	118

PUBLIC ADMINISTRATION (T-146)

CAREER INFORMATION

This career program is designed to prepare individuals for mid-management level positions in state and local governments and non-profit organizations. It is geared to prepare individuals currently employed in the public sector for advancement opportunities, as well as to provide for those persons desiring to prepare for a future career in governmental or non-profit organizational agencies.

The program is designed to enable the student to enter the public sector with skills that make him/her productive immediately. It provides the career employee with motivation and advantages for further advancement in the career service of the local government.

The program offers the student an opportunity to begin or to continue a career in the public administration with an associate in applied science degree or to take courses for personal enrichment.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	English Composition	3	2	3
BUS	120*	Principles of Accounting	3	2	4
ECO	201*	Principles of Economics I	3	0	3
BUS	119	Introduction to Public Administration	3	0	3
Elective			3	0	3
			15	4	16
WINTER QUARTER					
ENG	102	English Composition	3	0	3
POL	201	American Federal Government	3	0	3
BUS	121*	Principles of Accounting	3	2	4
ECO	202*	Principles of Economics II	3	0	3
BUS	233	Personnel Management	3	0	3
BUS	115	Business Law	3	0	3
			18	2	19

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BUS	122	Principles of Accounting	3	2	4
POL	203	Government—State and Local	3	0	3
EDP	104	Introduction to Data Processing	3	2	4
BUS	238	Problems of Public Administration	3	0	3
Elective			3	0	3
			18	4	20
FALL QUARTER					
SOC	201	Introduction to Sociology	3	0	3
SOC	203	Contemporary Problems and Social Issues	3	0	3
BUS	277	Application in Public Administration I	2	6	4
BUS	240	Public Finance	3	0	3
Elective			3	0	3
			14	6	16
WINTER QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
PSY	201	General Psychology	3	0	3
BUS	272	Principles of Supervision	3	0	3
BUS	278	Application in Public Administration II	2	6	4
BUS	282*	Governmental Accounting	3	0	3
			14	6	16
SPRING QUARTER					
SOC	101	Community Resources	3	0	3
PSY	202	General Psychology	3	0	3
BUS	279	Internship in Public Administration	1	18	7
Elective			3	0	3
			10	18	16
		TOTAL HOURS	89	40	103

*In addition to the electives, proficiency credit may be substituted for up to 26 hours in the areas identified.

RADIOLOGIC (X-RAY) TECHNOLOGY (T-061)

CAREER INFORMATION

The advance of scientific knowledge in the medical field and the increase in services offered by hospitals and health centers have greatly increased the need for competent radiographers. The radiographers perform an important function in the rapidly growing branch of medicine known as radiology. Radiographers are support personnel for radiologists, and they specialize in the use of X-rays and other forms of ionizing radiation.

The radiographer should like people and be able to attend the sick and disabled with tact and sympathy. He/she should be dependable, accurate, and determined to continue with education beyond certification to keep up with new developments in the field.

The program in radiologic technology offered by Caldwell Community College and Technical Institute provides an opportunity for immediate employment as well as for continuing one's education at a senior institution or in programs of nuclear medicine and radiation therapy. Graduates of the associate in applied science degree program are eligible to take the American Registry in Radiologic Technology examination and, upon successful completion of this test, may become a registered radiographer.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. The radiologic technology program is a 24-month program. A grade of "C" must be maintained in all radiology courses. The clinical technique courses will be of 12 weeks duration.

		COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER					
RDT	101	Introduction to Radiologic Technology	2	0	2
BIO	135	Medical Terminology I	1	0	1
RDT	102	Basic Patient Care	3	3	4
RDT	103	Radiation Protection I	1	0	1
			7	3	8
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
MAT	101	College Math	3	0	3
BIO	108	Human Anatomy and Physiology I	3	2	4
RDT	109	Introduction to Clinical Technique	0	6	2
RDT	110	Introduction to Radiographic Technique	1	2	2
RDT	111	Radiographic Procedures I—Extremities	6	2	7
BIO	126	Medical Terminology II	1	0	1
			17	14	22
WINTER QUARTER					
ENG	102	English Composition	3	0	3
PHY	107	Physics	3	2	4
BIO	109	Human Anatomy and Physiology II	3	2	4
RDT	112	Radiographic Evaluation	1	2	2
RDT	113	Radiographic Procedures II—Skull and Spine	6	2	7
RDT	114	Clinical Technique I	0	15	5
			16	23	25

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
PHY	108	Physics	3	2	4
RDT	115	Radiographic Processing	1	2	2
RDT	116	Radiographic Procedures III—Special Skull and GI Tract	4	0	4
RDT	117	Clinical Technique II	0	24	8
			11	28	21
SUMMER QUARTER					
RDT	118	Radiographic Procedures IV—Urinary and Reproductive Radiography	1	2	2
BIO	209	Radiation Biology	3	0	3
PED	185	First Aid and Safety	3	0	3
RDT	119	Clinical Technique III	0	24	8
RDT	120	Imaging Modalities	3	0	3
			10	26	19
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
RDT	210	Radiographic Equipment and Accessories	3	0	3
RDT	211	Clinical Technique IV	0	24	8
RDT	212	Radiographic Procedures V—Angiography	3	0	3
Elective			3	0	3
			12	24	20
WINTER QUARTER					
BIO	208	Introduction to Study of Disease	3	0	3
PSY	201	General Psychology	3	0	3
RDT	213	Principles of Exposure I	3	0	3
RDT	214	Clinical Technique V	0	24	8
RDT	215	Radiographic Procedures VI—Pediatric and Dental	3	0	3
			12	24	20
SPRING QUARTER					
SOC	201	Introduction to Sociology	3	0	3
RDT	216	Principles of Exposure II	2	2	3
RDT	217	Clinical Technique VI	0	24	8
RDT	218	Radiographic Procedures VII—Special View of Whole Skeleton	2	0	2
Elective			3	0	3
			10	26	19

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
HEA	200	Allied Health Management	3	0	3
RDT	219	Radiation Protection II	2	0	2
RDT	220	Quality Control Seminar	2	2	3
RDT	221	Clinical Technique VII	0	24	8
Elective			3	0	3
			10	26	19
		TOTAL HOURS	105	194	173

RECREATION LEADERSHIP (THERAPEUTIC AND COMMUNITY) (T-083)

CAREER INFORMATION

The graduate of the recreation leadership curriculum may enter a variety of careers in the field of recreation. In most situations the leader will work under the supervision of a professional recreator.

The demand for recreation leaders surely will increase as more and more attention is focused on leisure time. The recreation leader will need the skills and background knowledge to work as an activity director in sports, arts, and crafts or to supervise and conduct programs for various recreation facilities in public, private, commercial, industrial, and institutional settings.

Students enrolled in the recreation curriculum have the option of specializing in a particular area of recreation. The two major areas of concentration are recreational therapy and community recreation. A considerable proportion of the offered courses within the curriculum will transfer to four year institutions with the number of transferred hours dependent on each college.

The therapeutic option is designed to train leaders for health agencies serving the ill and handicapped. Students interested in therapeutic recreation concentrate their field work experiences with health agencies such as institutions for the mentally ill, mentally retarded, correctional centers, physically handicapped, and day care centers.

The community recreation option is designed to train recreation leaders for public, private, and commercial recreation agencies. The community recreation specialty requirements are fulfilled with municipal departments, YMCA's, YWCA's, and private and commercial recreation establishments.

Satisfactory placement scores in reading, math, and English must be achieved prior to full-time admission into this program.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	101	Reading	1	3	2
ENG	101	Grammar and Composition	3	2	3
PSY	201	General Psychology	3	0	3
PED	180	Personal & Community Health	3	0	3
REC	101	Intro. to Recreation Services	5	0	5
ART	127	Creative Crafts I	1	4	3
Elective		(Physical Education)	0	2	1
			16	11	20

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
ENG	102	English Composition	3	0	3
PSY	215	Intro. to Exceptional Individuals	3	0	3
PED	185	First Aid and Safety	3	0	3
MUS	110	Recreational Music	3	0	3
REC	103	Recreation Programming	3	0	3
Elective		(Physical Education)	0	2	1
Elective			3	0	3
			18	2	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDM	104	Audiovisual Equipment	3	0	3
DRA	110	Recreational Drama	1	4	3
REC	102	Recreation & Special Populations	3	0	3
REC	105	Areas and Facilities	3	0	3
REC	106	Camping	5	0	5
Elective		(Physical Education)	0	2	1
			18	6	21
FALL QUARTER					
SOC	201	Introduction to Sociology	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
REC	215	Dance	1	4	3
REC	104*	Rehabilitation Services	3	0	3
or Elective					
REC	208	Field Work	0	6	2
Elective		(Physical Education)	0	2	1
			10	12	15
WINTER QUARTER					
REC	121	Social Recreation	3	0	3
REC	202	Recreation Leadership	3	0	3
REC	209	Field Work	0	9	3
Elective		(Physical Education)	0	2	1
Elective		(Social Science)	3	0	3
Elective			3	0	3
			12	11	16
SPRING QUARTER					
REC	203	Water Sports	1	4	3
REC	205	Outdoor Education	3	0	3
REC	210	Field Work	0	15	5
REC	211	Recreation Seminar	1	0	1
Elective		(Physical Education)	0	2	1
			5	21	13
		TOTAL HOURS	79	63	104

*REC 104 is recommended for persons interested in therapeutic recreation.

SECRETARIAL SCIENCE (T-030) (T-032)

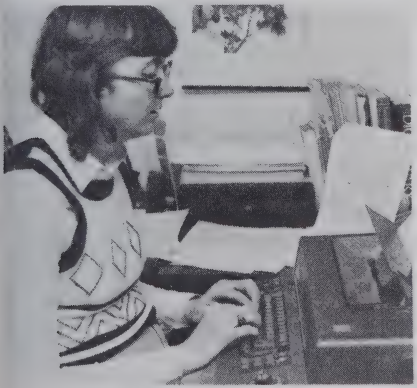
CAREER INFORMATION

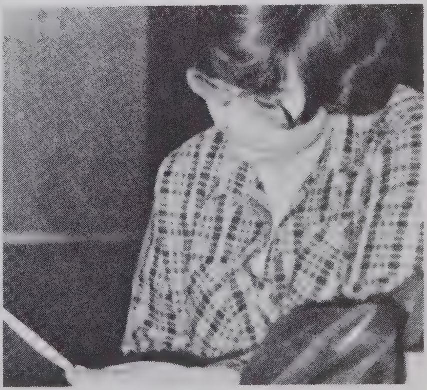
The graduates of this program should have a knowledge of the terminology peculiar to the major area, skill in dictation, and accurate transcription of all correspondence, memoranda, and reports. The graduate may be employed as a stenographer or secretary in a variety of offices in businesses such as insurance companies, banks, marketing institutions, financial firms, doctors' offices, medical and health institutions, and government agencies.

Reading level of 12.0 or RDG 101 required for graduation.

EXECUTIVE SECRETARY OPTION (T-030)

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101*	Grammar and Composition	3	2	3
MAT	110*	Business Math	5	0	5
BUS	101*	Introduction to Business	5	0	5
BUS	102*	Typewriting	2	3	3
BUS	106	Shorthand	2	3	3
			17	8	19
WINTER QUARTER					
ENG	102*	English Composition	3	0	3
BUS	103*	Typewriting	2	3	3
BUS	107	Shorthand	2	3	3
BUS	110*	Office Machines	2	2	3
BUS	115*	Business Law	3	0	3
			12	8	15
SPRING QUARTER					
EDP	104	Introduction to Data Systems	3	2	4
BUS	104*	Typewriting	2	3	3
BUS	108	Shorthand	2	3	3
BUS	134*	Personal Development	3	0	3
BUS	214*	Secretarial Procedures	3	2	4
			13	10	17





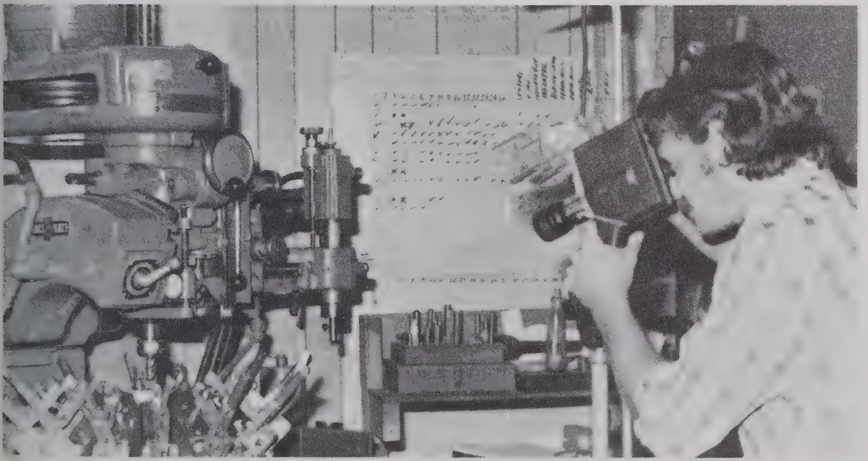
		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
SPH	101*	Fundamentals of Speech	3	0	3
BUS	120*	Principles of Accounting	3	2	4
BUS	205*	Word Processing I	2	3	3
BUS	206E	Dictation and Transcription	3	2	4
Elective			3	0	3
			14	7	17
WINTER QUARTER					
ENG	105*	Business Communication	3	0	3
BUS	121	Principles of Accounting	3	2	4
BUS	207E	Dictation and Transcription	3	2	4
BUS	211*	Word Processing II	0	6	2
Elective			3	0	3
			12	10	16
SPRING QUARTER					
BUS	208E	Dictation and Transcription	3	2	4
BUS	247*	Business Insurance	3	0	3
BUS	271	Office Management	3	0	3
Elective			3	0	3
Elective			3	0	3
			15	2	16
		TOTAL HOURS	83	45	100

*A certificate is awarded for satisfactory completion of these courses.

MEDICAL SECRETARY OPTION (T-032)

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	3	2	3
MAT	110	Business Math	5	0	5
BUS	102	Typewriting	2	3	3
BUS	106	Shorthand	2	3	3
BIO	115	Human Anatomy for Medical Secretaries	3	0	3
			15	8	17
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	103	Typewriting	2	3	3
BUS	107	Shorthand	2	3	3
BUS	110	Office Machines	2	2	3
BUS	183M	Terminology and Vocabulary I	3	0	3
			12	8	15

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
EDP	104	Intro. to Data Systems	3	2	4
BUS	104	Typewriting	2	3	3
BUS	108	Shorthand	2	3	3
BUS	214	Secretarial Procedures	3	2	4
BUS	284M	Terminology and Vocabulary II	3	0	3
			13	10	17
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
BUS	120	Principles of Accounting	3	2	4
BUS	205	Word Processing I	2	3	3
BUS	206M	Dictation and Transcription	3	2	4
Elective			3	0	3
			14	7	17
WINTER QUARTER					
ENG	105	Business Communication	3	0	3
BUS	121	Principles of Accounting	3	2	4
BUS	207M	Dictation and Transcription	3	2	4
BUS	211	Word Processing II	0	6	2
Elective			3	0	3
			12	10	16
SPRING QUARTER					
BUS	134	Personal Development	3	0	3
BUS	208M	Dictation and Transcription	3	2	4
BUS	247	Business Insurance	3	0	3
BUS	271	Office Management	3	0	3
Elective			3	0	3
			15	2	16
		TOTAL HOURS	81	45	98



COLLEGE TRANSFER ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREE PROGRAMS

The associate in arts and associate in science degree programs are designed for persons who are planning to transfer to a four-year college or university. These programs provide opportunities to complete the first two years of general college courses, with some degree of specialization. Caldwell Community College and Technical Institute offers the following associate in art and associate in science degree programs:

- ASSOCIATE IN ART
  - PRE-ART
  - PRE-BUSINESS ADMINISTRATION
  - PRE-BUSINESS EDUCATION
  - PRE-FURNITURE
  - PRE-LIBERAL ARTS
  - PRE-PHYSICAL EDUCATION
  - PRE-PUBLIC ADMINISTRATION
  - PRE-RECREATIONAL
  - PRE-TEACHING (ELEMENTARY AND SECONDARY)
- ASSOCIATE IN SCIENCE
  - PRE-ENGINEERING
  - PRE-SCIENCE

ASSOCIATE IN ARTS

Associate in arts degree candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 94 credit hours with an overall grade point average of 2.0 ("C") or better.

	Quarter Hours Credit
Communication Arts This requirement is met by completing English 101, 102, 103, Speech 101, and Reading 101* or an approved equivalent.	14
Humanities This requirement is met by completing 9 hours from "A" below and 6 hours from "B" below. A. Literature, or Language (Advanced Spanish 211, 212, 213) B. Music Appreciation, Art History, American Music, Philosophy, Religion, Humanities, Studies in Fiction	15
Mathematics This requirement is met by completing Math 101 and 102 or Math 111 or higher	6
Natural Science Biology, Physical Science, Physics, Chemistry, Astronomy, Physical Geography	12

Social Science This requirement is met by completing History 101, 102, 103 and 6 hours from any of the following: Economics, Regional Geography, Political Science, Sociology, Anthropology, Psychology, History.	15
Physical Education†	3
Electives	29
TOTAL QUARTER HOURS	94

Electives may be selected from any area or course which is usually transferable but should be based upon the requirements of the four-year institution to which the student plans to transfer.

*In the interest of helping students succeed in their chosen curriculum, Caldwell Community College and Technical Institute maintains a reading/study skills center for the improvement of reading, encompassing instruction in how to study, how to improve reading comprehension, how to increase vocabulary, and how to increase reading rate. Facilities and equipment are provided for diagnosing individual reading difficulties and for achieving peak skills in reading efficiency and comprehension. Services of the center are available through credit courses to any student who desires to improve his reading ability or whose admission testing scores indicate a need for greater reading efficiency.

†All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the department of physical education. Every effort will be made to involve each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180, Personal and Community Health.

PRE-ART

Pre-art is offered to students with talent and/or interest in the arts. Senior institutions offer majors in painting, sculpture, ceramics, commercial art, interior design, art history, studio art, and art education.

The transfer students will be adequately prepared to move into a specialized art curriculum upon completion of this pre-art program.

Pre-art majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required electives hours: Art 100, Art 102, Art 112, Art 113, Art 114, Art 115, Art 124, Art 201, Art 218, Art 203, Education 201, and Physics 101.

PRE-BUSINESS ADMINISTRATION

The curriculum for the student in business administration includes a broad foundation in liberal arts and professional courses that begins to prepare a person to meet the changing complexities of life and leadership in the business community. Upon receiving the A.A. degree, the student will find a wide range of exciting careers in the business and industrial fields. The graduate's selection of professional studies at the senior institution in business administration, economics, marketing, insurance, management, finance, industrial relations, and many other related fields will lead to meaningful managerial positions in business, government, and nonprofit organizations.

Pre-business majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Business 101, Business 120, Business 121, Business 122, Economics 201, Economics 202, and Economics 203.

PRE-BUSINESS EDUCATION

Business education, sometimes referred to as "distributive education," provides students the opportunity to obtain the first two years of undergraduate studies toward a baccalaureate degree in business education and a class "A" teaching certificate in basic and comprehensive teaching or distributive education teaching. In addition, the opportunity exists for students to continue in the same program for a nonteaching degree in office administration.

Pre-business education majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Business 102, Business 103, Business 104, Economics 201, Economics 202, Economics 203, Business 106, Business 107, Business 108, Business 120, Business 121, and Business 122.

PRE-FURNITURE

In North Carolina the furniture industry ranks third in terms of its dollar volume of sales and second in terms of its employment. In order to meet the increasing demand for furniture products, the industry is rapidly changing towards mechanization and more sophisticated management controls.

The transfer students will be adequately prepared to move into a specialized furniture curriculum upon completion of the pre-furniture program and the awarding of the associate in arts degree.

Pre-furniture majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Furniture 102, Furniture 103, Furniture 104, Furniture 108, Furniture 109, and Furniture 201.

PRE-LIBERAL ARTS

The liberal arts curriculum has been designed to prepare the student for entrance with advanced standing to colleges and universities that grant the bachelor's degree; to assist the individual in exploring the major fields of study; and to prepare a person to meet the needs of his total environment through this study of liberal arts courses. Liberal arts courses, in their full context, open the way to help the students understand the condition of man's existence, through the study of ideas and experiences in a variety of subjects and disciplines.

The A.A. degree in liberal arts provides the educational foundation for curriculum degree programs at the senior institution in art, drama, literature, modern languages, music, philosophy, journalism, speech, history, political science, psychology, sociology, anthropology, biology, chemistry, mathematics, and earth science, to mention only the main areas. Candidates for the associate in arts degree in pre-liberal arts meet all requirements for the degree.

PRE-PHYSICAL EDUCATION

The purpose of this program is to provide the student with a sound foundation in liberal arts courses supported by learning experiences in a variety of activity skill courses. Introductory courses in physical education with primary emphasis on knowledge of basic health, fitness, and physiological principles relating to physical activity will be emphasized.

Pre-physical education majors must fulfill all requirements for an associate of arts degree. The following courses are required as part of the required elective hours: Physical Education 201, Physical Education 180, Physical Education 185, and six (6) physical education activity courses, including physical fitness. Biology 108 and Biology 109 (anatomy and physiology) and related recreation courses are recommended electives for pre-physical education majors, but students are advised to check transferability to senior institutions.

PRE-PUBLIC ADMINISTRATION

Caldwell Community College and Technical Institute offers a pre-public administration program to both present and future government employees, as well as to other interested citizens.

The program is designed to enable the student to enter public service with skills that make him/her productive immediately. It provides career employees with motivation and advantages to further themselves in the career service of the local government.

The program offers the student an opportunity to transfer to a senior institution and to continue a career in public service administration.

In addition to the general requirements for a student to receive the associate in arts degree, the pre-public administration major will take Business 119, Business 238, Business 240, Business 277, Business 278, Business 279, and Business 246. Sufficient electives should be taken to meet degree requirements.

PRE-RECREATION

The purpose of this program is to provide the students with a sound foundation in liberal arts courses complete with an understanding about man's recreational behavior. The pre-recreation curriculum provides educational preparation for students who will seek careers in a wide variety of business service agencies at the local, regional, state, and national levels. The senior institution offering a degree in recreation allows students to major in concentrations in municipal recreation, industrial recreation, park management, camping, ecology, therapeutic recreation, music or theatre art, and other programs dealing in youth services, corrective institutions, and recreation for the elderly.

Pre-recreation majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Recreation 101, Recreation 106, Recreation 121, Physical Education 180, Education 201, Recreation 205, Art 127, and Physical Education 185.

PRE-TEACHING (K-3; 4-9; 10-12)

The State of North Carolina Department of Public Instruction provides teacher certification in the following three categories: early childhood education (kindergarten through grade three); intermediate education (grade four through nine); and secondary school education (grade ten through grade twelve).

Students seeking certification in early childhood education (K-3) will, upon transfer, begin a specialized curriculum emphasizing appropriate values and techniques that should equip the teacher with the competency and understanding essential to teaching children in the early years. Those wishing to be certified for the intermediate grades (4-9) will, upon transfer, choose an appropriate subject area concentration in language, arts, mathematics, science, or social studies. A second area is recommended and is generally selected from the fields of library science, reading, special education, art, music, or physical education.

Students desiring to enter the K-3 or 4-9 program should follow the basic elementary program, and those who desire certification for grades ten to twelve (10-12) should select the secondary education program.

Pre-teaching majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: History 201, History 202, History 203, Geography 201, Education 201, or Education 202. Physical science is suggested for students interested in kindergarten through ninth grade.

ASSOCIATE IN SCIENCE

Associate in science candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 94 credit hours with an overall grade point average of 2.0 ("C") or better:

	Quarter Hours Credit
Communication Arts This requirement is met by completing English 101, 102, and 103, and Reading 101* or an equivalent.	11
Humanities This requirement is met by completing 9 hours in Literature, Music Appreciation, Art History, Religion, Studies in Fiction, Humanities, or Philosophy.	9
Mathematics This requirement is met by completing 15 hours from courses numbered 113 or higher. (Courses numbered below 113 may be taken for elective credit.)	15

Natural Science	24
This requirement is met by completing 3 quarters of two of the following sciences: Biology, Physical Science, Physics, or Chemistry.	
Social Science	12
This requirement is met by completing 6 hours in History and 6 hours in Economics, Regional Geography, Political Science, Psychology, Sociology, Anthropology, or History.	
Physical Education†	3
Electives	20
TOTAL QUARTER HOURS	94

Electives may be selected from any area or course which is usually transferable but should be based upon the requirements of the four-year institution to which you will transfer.

*In the interest of helping students succeed in their chosen curriculum, Caldwell Community College and Technical Institute maintains a reading/study skills center for the improvement of reading, encompassing instruction in how to study, how to improve reading comprehension, how to increase vocabulary, and how to increase reading rate. Facilities and equipment are provided for diagnosing individual reading difficulties and for achieving peak skills in reading efficiency and comprehension. Services of the center are achieving peak skills in reading efficiency and comprehension. Services of the center are available through credit courses to any student who desires to improve his/her reading ability or whose admission testing scores indicate a need for greater reading efficiency.

†All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the department of physical education. Every effort will be made to involve each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180, Personal and Community Health.

PRE-ENGINEERING

The Pre-engineering program is designed to prepare students to continue studies toward the baccalaureate degree in engineering at senior institutions. In view of the emphasis on mathematics and sciences, students who decide upon this program should possess high academic potential and should have demonstrated above average mathematical ability.

Students contemplating an engineering career should contact the school of engineering of their choice in order to obtain additional information as to degree requirements. If possible, applicants seeking a degree in engineering at the senior institution should plan to enter summer school to make up required technical courses missed during the first two years.

Careers in engineering offer vast opportunities in the business and industrial world. Degrees generally offered in schools of engineering consist of aerospace, chemical, civil, electrical, engineering mechanics, industrial, mechanical and nuclear, in addition to many other engineering options.

Pre-engineering majors must fulfill all requirements for the associate in science degree. The following courses are suggested electives to be included in the required elective hours: Engineering 101, Engineering 102, and Data Processing 125.

PRE-SCIENCE

The pre-science curriculum is designed for students preparing to transfer to a four-year program requiring a concentration in science and mathematics. The courses are chosen with the student in mind who seeks to obtain a sound education in mathematics and the physical sciences with a wide variety of major fields of interest.

The main objective of this program is to prepare future leaders in the field of science ranging from teaching in higher education to the research specialist. Candidates for the associate in science degree in pre-science must meet all requirements for the degree.

COURSE DESCRIPTIONS

GENERAL COURSE DESCRIPTIONS
SPECIAL CODING SYSTEM

F	Course will be offered FALL QUARTER
W	Course will be offered WINTER QUARTER
S	Course will be offered SPRING QUARTER.
SS	Course will be offered SUMMER QUARTER.
D	Course will be offered when sufficient students and instructor are available.
N	Designates a NURSING course.
E	Designates an EXECUTIVE SECRETARY course.
M	Designates a MEDICAL SECRETARY course.

Some numbers with 3 digits represent college transfer courses.
Some numbers with 3 digits represents two-year occupational courses.
Numbers with a "T" and 3 digits represent some two-year occupational courses.
Numbers with 4 digits represents one-year occupational courses.
Students should check with senior colleges of their choice for the transferability of courses.

The numbers to the right of the course title represent the following: class, lab, credit. For example:

	Class	Lab	Quarter Hours Credit
ENG 203 English Literature	**3**	**0**	**3**

In order to determine contact hours, add class hours and lab hours. For example:

	Class	Lab	Quarter Hours Credit
ART 120 Ceramics I	**2**	**2**	**3**

Two class hours plus two lab hours equals four contact hours. Where no prerequisite is listed, none is required.

AIR CONDITIONING

AHR 101 Air Conditioning and Refrigeration 3 3 4

A general introduction to the principles of refrigeration, including the study of the assembly of the components and connections necessary in the mechanisms, methods of operation and control, and proper handling of refrigerants in charging the system. The use of testing equipment in diagnosing trouble, conducting efficiency tests, and general maintenance work is also included. (S)

AHR 1101 Automotive Air Conditioning 3 3 4

A general introduction to the principles of refrigeration, including the study of the assembly of the components and connections necessary in the mechanisms, the methods of operation and control, and proper handling of refrigerants in charging the system. The use of testing equipment in diagnosing trouble, conducting efficiency tests, and general maintenance work is also included. (S)

AHR 1101-1 (Part-time) 3 0 3

AHR 1101-2 (Part-time) 0 3 1

ANTHROPOLOGY

ANT 201 Introductory Anthropology 3 0 3

An overview of the field of anthropology. Includes physical evolution of mankind, biological variation within and between human populations, historical development of cultures, and cultural dynamics viewed analytically and comparatively. (D)

ANT 202 Cultural Anthropology 3 0 3

The science of the enculturation of man. Includes ethnography, ethnology, inter-relationships between peoples and their environments, social anthropology, and lingustics. Prerequisite: ANT 201. (D)

ART

ART 102 Art History 3 0 3

An historical survey of painting, sculpture, and architecture from the ancients through the twentieth century. (F/W/S/SS)

ART 103 Art Introduction **3 0 3**

An introductory study of fundamental elements and principles of creative artistic expression with an emphasis on composition, design, shape, value, styles, and movements. (D)

ART 112 Beginning Drawing **2 2 3**

A study of rudimentary drawing techniques with an emphasis on design and spatial relations in line, texture, value, and volume. (D)

ART 113 Basic Design and Composition **2 2 3**

A study of art elements, concepts, media, and principles of organization with a special emphasis on developing competencies in the art process. (D)

ART 114 Intermediate Design and Composition **2 2 3**

A continued study of ART 113 with a special emphasis on expanding skills in the arts process through exploration with the art elements, concepts, media, and principles of organization. (D)

ART 115 Beginning Painting **2 2 3**

A study of painting materials, techniques, form relations, and color through acrylics, watercolors, and mixed media with an emphasis on developing multiple means of perceiving perspective, tones, periphery, size relations, expansion, linear, chiaroscuro, and skills to render these perceptions. (D)

ART 120 Ceramics I **2 2 3**

A study of clay mixing, glazing, and firing with an emphasis on wheel throwing and handbuilding techniques. (D)

ART 124 Sculpture **2 2 3**

A study in principles of sculpture with an emphasis on studio instruction through modeling, casting, constructing, and carving from studies of nature and the human figure. (D)

ART 127 Arts and Crafts I **1 4 3**

A study of theories and concepts in structuring two and three dimensional forms with an emphasis on basic application through use of various materials such as flower construction, candle making, decoupage, ceramics, and book printing. (W)

ART 128 Arts and Crafts II **1 4 3**

A study in designing three dimensional forms with an emphasis on leather crafts, copper tooling, and macrame. (D)

ART 129 Arts and Crafts III **1 4 3**

A study of advanced problems of structuring three dimensional forms with an emphasis on individual expression in leather crafts, macrame, and handmade pottery. (D)

ART 201 Constructive Design in Plastic **2 2 3**

A study of plastic media foundation with an emphasis on creative synthesis of plastic design concepts utilizing aesthetic choice as a foundation of spiritual growth. (D)

ART 202 Constructive Design in Fabric **2 2 3**

A study of basics in fiber construction. (D)

ART 203 Constructive Design in Alloys 2 2 3

An introductory study of alloys and related media. (D)

ART 204 Art for the Preschool Child 2 2 3

A study of art for young children focusing on theory, methodology, materials, usage, and specific art activities appropriate for the young child. (F)

ART 218 Printmaking 2 2 3

An introductory study of basic printmaking processes, including relief printing, with an emphasis on student involvement. (D)

ASTRONOMY

AST 101 Elementary Descriptive Astronomy 2 2 3

A nonmathematical descriptive study of the solar system, (including the sun, moon, planets, meteors, comets) astronomical instruments and their uses, stars and star systems, nebulae, quasars, and galaxies. Laboratory topics include time latitude and longitude, tides, seasons, optics, and observations using the telescope. (S/D)

AUTOMOTIVE

AUM 1101 Automotive Mechanics I 4 12 8

A course to develop a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Includes a study of the construction and operation of components of internal combustion engines. Also covers testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, and cooling systems; proper lubrication; and methods of testing, diagnosing, and repairing. (F)

AUM 1101-1 (Part-time) 2 6 4

AUM 1101-2 (Part-time) 2 6 4

AUM 1102 Automotive Mechanics II 4 12 8

A thorough study of the electrical and fuel systems of the automobile to include battery cranking mechanism, generator, ignition, accessories, wiring, fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system are also included. (W)

AUM 1102-1 (Part-time) 2 6 4

AUM 1102-2 (Part-time) 2 6 4

AUM 1103 Automotive Mechanics III 4 12 8

A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment and repair, and the servicing of park brakes. Includes principles and functions of the components of automotive chassis and practical job instruction in adjusting and repairing of suspension systems. (S)

AUM 1103-1 (Part-time) 2 6 4

AUM 1103-2 (Part-time) 2 6 4

AUM 1104 Automotive Mechanics IV **4 12 8**

A study of the principles and functions of automotive power train systems. Includes clutches, transmission gears, torque converters, drive shaft assemblies, rear axles, and differentials. Also covers identification of troubles, servicing, and repair. (SS)

AUM 1104-1 (Part-time) **2 6 4**

AUM 1104-2 (Part-time) **2 6 4**

AUM 1105 Auto Servicing **3 9 6**

A course emphasizing the shop procedures necessary in "trouble-shooting" the various component systems of the automobile. Includes a full range of experiences in testing, adjusting, repairing, and replacing components. A close simulation to an actual automotive shop situation will be maintained. Prerequisite: AUM 1102, AUM 1103, AHR 1101 or off-campus instruction in the auto repair environment. A minimum of one quarter previous attendance and the prerequisites AUM 1104 and BUS 1103. (SS)

AUM 1105-1 (Part-time) **1 3 2**

AUM 1105-2 (Part-time) **1 3 2**

AUM 1105-3 (Part-time) **1 3 2**

PME 1121 Braking System (Truck) **2 3 3**

A complete study of various braking systems used on automobiles and light trucks. Emphasis is placed on how they operate and their proper adjustment and repair. (D)

PME 1126 Small Engine Repair **2 3 3**

A course offered to train in the maintenance and overhaul of two- and four-cycle engines. Students learn to repair and replace defective parts of the small engines used to power boats, lawn mowers, garden tractors, chain saws, rototillers, and similar machines. Instruction in safety is one of the major features of the course. (D)

PME 1184 Co-op Work. (Min.) **0 15 5**

A full-time or part-time prearranged on-the-job training course. The student is placed in a garage to gain experience during the summer and by contract, verbal or written agreement, returns to the institution for the fall term. The student enrolls at the school and is supervised by the instructor. Prerequisite: Three or more quarters of instruction. (SS/D)

PME 1202 Auto Electrical/Electronics **4 9 7**

A thorough study of the theory and operation of various automobile electrical units and systems. Covers maintenance and testing procedures, diagnosis, and repair of all types of electrical/electronic components, especially the transistor circuits found on the modern automobile. Prerequisite: AUM 1102.

PME 1202-1 (Part-time) **2 6 4**

PME 1202-2 (Part-time) **2 3 3**

PME 1203 Automotive Engine Tune-up **4 9 7**

A course designed to provide depth in understanding and skill in the use of various types of tune-up equipment. Emphasis is placed on gaining knowledge of the waveforms of the oscilloscope and other units of the Tune-Up Tester. Through proper use of tune-up equipment, the student is expected to demonstrate ability in diagnosing malfunctions in ignition systems, cranking motors, and charging circuits. Prerequisite: AUM 1102, DFT 1102 or equivalent work experience. (D)

PME 1203-1 (Part-time) 2 6 4

PME 1203-2 (Part-time) 2 3 3

PME 1214 Advanced Air Conditioning Repair 3 3 4

An in-depth study of the principles of refrigeration to include extensive practice in disassembly and the assembly of the component parts, diagnosis of malfunctioning, and the proper methods of repair and handling of refrigerants in charging the various systems. Prerequisite: AHR 1101 or work experience. (D)

PME 1221 Front Suspension, Alignment, and Power Steering 1 3 2

A course covering the theory of operation, correct disassembly, and mounting of all front suspension parts on various types of automobile and light truck frames. The course will provide a thorough understanding of the function and repair of steering gears (power and standard), shock absorbers, springs, wheels and tires, pumps, and rams. Includes theory and application of steering geometry, correct diagnosis of problems, use of the alignment and balancing machines, and analysis and correction of tire wearing problems, vibrations, hard steering, and pulling. Prerequisite: AUT 1123. (D)

PME 1224 Advanced Automatic Transmissions 3 12 7

A course designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, functions, construction, operation, servicing and "trouble-shooting" procedures, and repair of various types of automatic transmissions. Prerequisite: PME 1124 or work experience. (D)

PME 1224-1 (Part-time) 2 6 4

PME 1224-2 (Part-time) 1 6 3

PME 1225 Auto Engine Trouble Shooting 2 9 5

A course in the general principles of engine "trouble-shooting," including the electrical and fuel systems. In addition, a study is made of the engine design and construction along with the four-stroke cycle and the two-stroke cycle principles of engine operation. The details of the engine lubrication, maintenance, and operation of cooling systems are stressed. Prerequisite: AUM 1101 or work experience. (D)

PME 1225-1 (Part-time) 1 6 3

PME 1225-2 (Part-time) 1 3 2

PME 1226 Automobile Servicing II 2 9 5

A course emphasizing "trouble-shooting" and repairing the various component systems on vehicles provided for general repairs. The student is given in-depth experiences in diagnosis, testing, adjusting, repairing, and replacing components parts. Prerequisite: AUT 1125. (D)

PME 1226-1 (Part-time) 1 6 3

PME 1226-2 (Part-time) 1 3 2

PME 1227 Power Accessories 5 0 5

A course designed to acquaint the student with the operation, service, and repair of power operated seats, windows, tops, windshield wipers, radio antennas, etc. It should insure the development of the student's ability to understand and trace out the circuits of the electrical accessories and to enhance skills in diagnosing troubles and repairing damaged circuits. Includes application of knowledge in drawing and reading schematic diagrams of electrical circuits. Prerequisite: PME 1202 or work experience. (D)

AUB 1101 Auto Body Repair I 4 12 8

A study of the basic principles of automobile construction, design, and manufacturing. Includes a thorough study of angles, crown, and forming of steel into the complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning, and painting of damaged areas.

AUB 1101-1 (Part-time) 2 6 4

AUB 1101-2 (Part-time) 2 6 4

AUB 1102 Auto Body Repair II 4 12 8

A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders and metal working and painting.

AUB 1102-1 (Part-time) 2 6 4

AUB 1102-2 (Part-time) 2 6 4

AUB 1103 Auto Body Repair III 4 12 8

A course to develop skill in shrinking stretched metal; soldering and leading; preparing metals for painting; straightening of doors, hoods, and deck lids; fitting and aligning; painting fenders and panels; spot repairs; and complete vehicle painting. The student learns the use and application of power tools.

AUB 1103-1 (Part-time) 2 6 4

AUB 1103-2 (Part-time) 2 6 4

AUB 1104 Auto Body Repair IV 4 12 8

A general introduction to and instruction in the automotive frame and front end suspension systems, the methods of operation and control, and the safety of the vehicle. Unit job application covers straightening of the frames, front wheel alignment, methods of removing and installing interior trim, and cutting, sewing, installing, and fitting headlinings, seat covers, and door trim panels. All phases of training are applied. The course also covers repair order writing, parts purchasing, estimates of damage, and developing the final settlement with adjuster.

AUB 1104-1 (Part-time) **2 6 4**

AUB 1104-2 (Part-time) **2 6 4**

AUB 1105 Auto Body Shop Application **3 9 6**

An extensions study of topcoats and their applications, with further development in the skills of spot painting with acrylic lacquer and acrylic enamel. Includes application of overall finishes such as acrylic lacquer, acrylic enamel, synthetic enamel, and polyurethane, enamel; refinishing problems; and cures. Emphasis is placed on the final job appearance, detailing, neatness, and quality of repairs. Also covers development of skills in repair order writing, estimating, customer relations, and final settlement with insurance companies. Prerequisites: AUB 1101, AUB 1102. (SS)

AUB 1105-1 (Part-time) **1 3 2**

AUB 1105-2 (Part-time) **1 3 2**

AUB 1105-3 (Part-time) **1 3 2**

IMPORTED CAR OPTION

AUT 1145 Transaxle Operation and Repair **3 9 6**

A study of the combination transmission and differential (transaxle) used on imported rear engine units with emphasis on diagnosing and repairing malfunctions. (D)

AUT 1146 The Air-Cooled Engine **2 6 4**

A course designed to help the student understand the basic differences in liquid-cooled and the air-cooled engine. The horizontally-opposed and inline engine will be considered. (D)

AUT 1147 Imported Car Carburetion, **2 6 4**

A course covering the different types of carburetion used on imported cars. Included will be fuel injection and carburetors of the downdraft, sidedraft, and updraft type. (D)

AUT 1150 Imported Car Valve Trains **2 6 4**

A study of the valve systems used in imported cars. Includes conventional cam shaft and both single and double overhead cam shaft type train systems. (D)

AUT 1154 The Wankel Engine **3 9 6**

A course covering the wankel rotary engine used in some imported cars. Both the single rotor and double rotor are included. Models of the engine are disassembled and reassembled and the component parts studied. (D)

AUT 1158 Front Wheel Drive System **2 6 4**

A study of the systems used in many imported cars to provide front wheel drive. Includes a study of constant velocity universal joints and specialized differentials. (D)

BIOLOGY

BIO 101 General Biology **3 3 4**

An introduction to the biological concepts, including a study of the chemical and physical structure of the living cell. Various animal groups are studied from the point of view of structure, function, and habitat. (F/SS)

BIO 102 General Biology **3 3 4**

A continuation of BIO 101, including a study of various plant groups approached from the point of view of structure, function, and habitat. Prerequisite: BIO 101. (W/SS)

BIO 103 General Biology **3 3 4**

A continuation of BIO 102 with emphasis on specific concepts such as genetics and evolution. Prerequisite: BIO 102. (S/SS)

BIO 108 Human Anatomy and Physiology I **3 2 4**

A course providing an opportunity for the student to gain an understanding of the basic facts of human anatomy and physiology which are particularly useful for an allied health professional. Those principles of chemistry and physics which are supportive of these understandings are included along with the relevant pathophysiology. The systems covered will include reproduction, endocrine, circulation, urinary and fluid and electrolytes, and respiratory. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. Prerequisite: BIO 130. (W/SS)

BIO 109 Human Anatomy and Physiology II **3 2 4**

A continuation of BIO 108 providing an opportunity for the student to gain an understanding of the basic facts of human anatomy and physiology. Those principles of chemistry and physics which are supportive of these understandings are included, along with the relevant pathophysiology. The systems covered include nervous, digestive, skeletal, muscular, and skin. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. Prerequisite: BIO 108. (F/SS)

BIO 115 Human Anatomy for Medical Secretaries **3 0 3**

A general survey of human anatomy covering the reproductive, endocrine, circulatory, urinary, respiratory, nervous, digestive, skeletal, muscular, and integumentary systems. The course is designed as a preparatory course for medical terminology courses. (F)

BIO 125 Medical Terminology I **1 0 1**

The first in a series of two courses which includes terms related to all areas of medical science, hospital service, and para-medical specialities. Terms introduced parallel the topics covered in Anatomy and Physiology I. (F)

BIO 126 Medical Terminology II **1 0 1**

The second in a series of two courses in which terms related to all areas of medical science, hospital service, and para-medical specialities are introduced. Prerequisite: BIO 125. (W)

BIO 130 Basic Life Science **4 2 5**

A study of the normal structure and related functioning of the human body which is identified as a living organism composed of living cells, tissues, organs, and systems. The normal body is studied as a basis for understanding variations from the normal and the human's need to maintain homeostasis. Included are the skeletal, muscular, digestive, circulatory, respiratory, urinary, reproductive, endocrine, integumentary and nervous systems, and the special sense organs. Elementary principles and concepts of chemistry, microbiology, and physics are presented with the emphasis on the application of these principles to the relationships between structures and functions of the normal human body. Encompasses bacterial anatomy, physiology, and immunology in laboratory portions with relevant experiments to augment the student learning of body structure and function. (D)

BIO 135 Microbiology 2 2 3

A study of microscopic units of the human body as well as microorganisms. Emphasis is placed on the etiology of pathogens with special considerations given to pathogenicity, virulence, resistance, control, and immunity. Prerequisite: BIO 130. (F/SS)

BIO 139 Topographical Anatomy 2 0 2

A study of visualizing the patient's surface anatomy. Major emphasis is placed on learning the topographical location of internal organs, muscles, nerves and nerve plexuses, blood vessels, bony prominences, and techniques of palpation of structures not visually evident. Radiology is stressed throughout the course since the technique defines structures not recognized by visual inspection or palpation. Living anatomy is stressed throughout the course, so that surface landmarks and palpations are constant reminders of deeper structures. Prerequisite: NMT 102. (S)

BIO 201 Botany I 3 2 4

A study of the morphology, physiology, reproduction, and ecological relationships of nonseed producing plants. Prerequisite: BIO 103. (D)

BIO 202 Botany II 3 2 4

A study of the morphology, physiology, reproduction, and ecological relationships of seed producing plants. Prerequisite: BIO 201. (D)

BIO 206 Invertebrate Zoology 3 2 4

A study of the structure, physiology, and taxonomy of the invertebrates. Prerequisite: BIO 103. (D)

BIO 207 Vertebrate Zoology 3 2 4

A systematic survey of the major groups of vertebrate animals. Prerequisite: BIO 103. (D)

BIO 208 Introduction to Study of Disease 3 0 3

A study of the general principles involved in the living body. Covers a variety of diseases and malfunctions of the body. Each organ and system of organs will be looked at closely. Points of interest for the diagnostic technologist are covered. Prerequisites: BIO 108, BIO 109. (W)

BIO 209 Radiation Biology 3 0 3

A course designed to help the student understand the effects of ionizing radiation in the biologic system and to increase awareness of the public right to minimal radiation exposure. (SS)

BIO 225 Advanced Anatomy and Physiology

An introduction to normal structure and function of the human body on a cellular level, including tissues, organs, and organ systems. When relevant, clinical applications are briefly made of such acquired knowledge; e.g., relation of information to basic pathological states. The laboratory experience introduces additional fundamentals gained by personal participation in various types of exercises.

BIOMEDICAL ELECTRONICS TECHNOLOGY

BMT 201 Medical Institutions 3 0 3

A motivational and career orientation course designed to prepare the student to enter the health care industry with some degree of general sophistication and awareness. Hospital functions and design, a brief description of most medical specialities and para-medical occupations, and the professional and social interrelationship between these groups are covered. (F)

BMT 228 Practicum 0 39 13

A course providing supervised work experience on a schedule satisfactory to the employer, the institution, and the student. The work periods are carefully planned and closely supervised by the employer and the institution to provide experiences and responsibilities commensurate with the capabilities of the student. Prerequisite: Satisfactory completion of six quarters of the biomedical equipment technology program. (S)

BMT 244 Safety Inspections and Standards 2 4 4

A review of biomedical instrumentation with emphasis on safety. Particular attention is given to all aspects which involve physical or biological hazards to patients or operating personnel. National, state, and local standards are reviewed and methods of implementing standards are studied. (W)

BMT 254 Biomedical Instrumentation I 2 4 4

The first in a series of three courses of medical instrumentation. Designed to provide the student with a background on the source of the segual for a given instrument, the basis on which the measurement is made, and the use of the results as related to medical instrumentation. (SS)

BMT 264 Biomedical Instrumentation II 2 4 4

A continuation of BMT 254. Provides an indepth analysis of the basic medical instrumentation circuits. Experiments are provided for each circuit. Prerequisite: BMT 254. (F)

BMT 271 Biomedical Instrumentation III 2 4 4

A continuation of BMT 264. Describes the theory and operation of actual medical instruments. Experiments are provided to build, calibrate, and test medical instruments. Prerequisite: BMT 264. (W)

BMT 274 Biomedical Instrumentation: X-Ray and Nuclear Medicine 2 4 4

A course designed to provide the technician with an understanding of the workings of the component parts of radiation producing, detecting, and measuring equipment and with the ability to maintain, repair, and adjust this equipment. Prerequisite: Approval of instructor. (F)

BMT 280 Biomedical Instrumentation Troubleshooting 2 4 4

A course presenting basic problems involving tracking down and identifying problems frequently encountered with various types of medical instrumentation. Much time is spent developing logical troubleshooting techniques such as backtracking and the half split rule. Any clinical or monitoring devices may be used for laboratory exercises. Mechanical, as well as electronic problems, are considered. Prerequisite: Approval of instructor. (W)

BUSINESS EDUCATION

BUS 090 Basic Accounting **3 2 4**

A course designed to provide the student with a basic understanding of accounting. Emphasis is placed on the fundamentals of accounting in an effort to give the student a strong foundation for entry into Accounting I. Covers the basic accounting cycle of journalizing, posting, and preparation of the work sheet and financial statements, adjusting and closing entries, and the post-closing trial balance. Completion of this course does not earn credit toward the completion of a diploma or a degree. (D)

BUS 101 Introduction to Business **5 0 5**

A survey of the types of business organizations with emphasis on financing, marketing, business law, and internal control and management. (S)

BUS 102 Typewriting **2 3 3**

An introduction to the touch-typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. (F)

BUS 103 Typewriting **2 3 3**

A continuation of BUS 102 with emphasis on the development of speed and accuracy with further mastery of correct typewriting techniques. These skills are applied in correspondence, tabulation, manuscripts, and business forms. Prerequisite: BUS 102 or approval of instructor. (F/W)

BUS 104 Typewriting **2 3 3**

A continuation of BUS 103 with emphasis on production typing and speed building. Attention is given to the student's ability to function as an expert typist, producing mailable copies. Units of production include correspondence, tabulation, manuscripts, medical reports, legal documents, accounting reports, and programs. Prerequisite: BUS 103 or the equivalent. (W/S)

BUS 106 Shorthand **2 3 3**

A study of the principles of Gregg Shorthand, including a presentation of theory and extensive practice in reading and writing shorthand, with emphasis on phonetics, penmanship, word families, brief forms, and phrases. (F)

BUS 107 Shorthand, **2 3 3**

A continuation of the study of shorthand theory with more emphasis on speed, accuracy, fluency, and vocabulary. Includes an introduction to transcription—minimum dictation rate of 60 words a minute with a minimum of 95 percent accuracy on new material. Prerequisite: BUS 106. (F/W)

BUS 108 Shorthand **2 3 3**

A study of theory and speed building with an emphasis on development of speed in dictation and speed accuracy in transcription. Includes an introduction to office style dictation with minimum dictation rate of 70 words a minute with a minimum of 95 percent accuracy on new material. Prerequisite: BUS 107. (W/S)

BUS 110 Office Machines **2 2 3**

A general survey of business and office machines. Students receive training in techniques, processes, operation, and application of adding machines and electronic calculators. (W/S)

BUS 111 Collecting and Reporting Information 2 2 3

A course designed to aid the student in the methods of collecting various types of data needed in the furniture industry for better cost estimates and analysis. Emphasis is placed on accurate methods of collecting and presenting data in an effective method. (F)

BUS 112 Personal Finance 3 0 3

A course covering personal and family finance, budgeting, saving, insurance, real estate, stock market, and other investment media. (D)

BUS 115 Business Law 3 0 3

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instrument, and agencies. (W)

BUS 116 Business Law 3 0 3

A course including the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights. Prerequisite: BUS 115. (S)

BUS 119 Introduction to Public Administration 3 0 3

A survey of the practices and political relationships in public administration leadership, decision making, personnel, and budgetary functions within governmental agencies. Includes analysis of the role of the public administrator in contemporary government and an examination of the implementation of public policy at all levels of government with emphasis on local and the municipal institutions. (F)

BUS 120 Principles of Accounting 3 2 4

A study of methods of modern accounting practice, theory of accounting as a management information system, study of the accounting cycle and presentation of financial statements, and methods and practices applicable to formal organizations. (F)

BUS 121 Principles of Accounting 3 2 4

A continuation of the study of accounting principles and practices with emphasis on managerial accounting tools for decision making. Prerequisite: BUS 120. (W)

BUS 122 Principles of Accounting 3 2 4

A critical examination and analysis of accounting principles, determination of cost and income, valuation and statement presentation, and current problems presented in accounting literature and business cases. Prerequisite: BUS 121. (S)

BUS 123 Business Finance 3 0 3

A study of the financing of business units as individuals, partnerships, corporations, and trusts. A detailed study is made of short-term, long-term, and consumer financing. (F)

BUS 124 Business Finance 3 0 3

An examination of financing in federal, state, and local government and the ensuing effects upon the economy, with a look at factors affecting the supply of funds and monetary and credit policies. Prerequisite: BUS 123. (W)

BUS 134 Personal Development 3 0 3

A course designed to help the student recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal development. (S)

BUS 183M Terminology and Vocabulary 3 0 3

A course designed to develop an understanding of the terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices. (W)

BUS 195 Small Business Management 3 0 3

A course designed to emphasize those aspects of management that are uniquely important to small firms and self-employed individuals. Provides practice in decision making on the same types of problems that small businessmen face as they make decisions. Emphasis is placed on organization, financing, recordkeeping, and management. (D)

BUS 205 Word Processing I 2 3 3

A course emphasizing the development of individual production rates. The student learns the techniques needed in planning and typing projects that closely approximate the work appropriate to the field of study. The use of transcribing machines is taught with specific emphasis on the operation of word processing equipment. Prerequisite: BUS 104. (F)

BUS 206E Dictation and Transcription 3 2 4

A course designed to develop the skill of taking dictation and transcribing at the typewriter materials appropriate to the course of study. Includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. A minimum dictation rate of 80 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Prerequisite: BUS 108. (F)

BUS 206M Dictation and Transcription 3 2 4

A course designed to help the student learn the fundamentals of medical transcription. Medical dictation is accurately transcribed using medical dictionaries, spelling guides, and other standard reference sources. Students become familiar with the various types of medical reports, records, and acceptable initials and abbreviations for medical terminology. Prerequisite: BUS 108. (F)

BUS 207E Dictation and Transcription 3 2 4

A course designed to help develop the accuracy, speed, and vocabulary necessary to meet the stenographic requirements of business and professional offices. A minimum dictation rate of 90 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Opportunities for application of transcription skills are available through limited hours of work experience in the CCC & TI word processing center. Prerequisite: BUS 206E. (W)

BUS 207M Dictation and Transcription 3 2 4

A course emphasizing accurate production of medical transcription through a broad knowledge of medical terms, drugs, and instruments, as well as acceptable initials and abbreviations for medical terminology. The student continues to use medical dictionaries, spelling guides, and other standard reference sources. Prerequisite: BUS 206M. (W)

BUS 208E Dictation and Transcription **3 2 4**

A speed-building course, principally, but also with a focus on accuracy. A minimum dictation rate of 90 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Limited hours of transcription experience are gained in CCC & TI's word processing center. Prerequisite: BUS 207E. (S)

BUS 208M Dictation and Transcription **3 2 4**

A course emphasizing accurate medical transcription through a broad knowledge of medical terms, drugs, and instruments, as well as acceptable initials and abbreviations for medical terminology. The student continues to use medical dictionaries, spelling guides, and other standard reference sources. Prerequisite: BUS 207M. (S)

BUS 211 Word Processing II **0 6 2**

A course providing instruction in the operation of word processing equipment on practical application problems. Prerequisite: BUS 205. (W)

BUS 212 Business Machine Transcription **1 2 2**

A study and practice in the use of transcribing machines in business dictation. Proficiency in word usage, correct grammar, and letter styles are emphasized. Prerequisite: BUS 103. (D)

BUS 214 Secretarial Procedures **3 2 4**

A course designed to acquaint the student with the responsibilities encountered by a secretary during the workday. These include receptionist duties, handling the mail, basic rules of filing, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims. (S)

BUS 215E Office Application **0 18 6**

A course in which students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned according to the course of study. Open only to students in the sixth quarter. Prerequisites: BUS 214, BUS 205, BUS 208, BUS 211. (D)

BUS 215M Office Application **0 18 6**

A course in which students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned according to the course of study. Open only to students in the sixth quarter. Prerequisites: BUS 214, BUS 205, BUS 208, BUS 211. (D)

BUS 217 Business Law **3 0 3**

A study of the powers, policies, methods, and procedures used by the various federal, state, and local administrative agencies in promoting and regulating business enterprises. Includes a consideration of the constitutional and statutory limitations on these bodies and judicial review of administrative action. Prerequisite: BUS 116. (D)

BUS 219 Credit Procedures **3 0 3**

A study of the principles and practices in the extension of credit. Includes collection procedures and law pertaining to credit extension and collection. (W)

BUS 220 Intermediate Accounting **3 2 4**

A thorough treatment of the field of general accounting providing the necessary foundation for specialized studies and emphasis on financial statements, the accounting process, and current assets. Prerequisite: BUS 122. (F)

BUS 221 Intermediate Accounting **3 2 4**

A theoretical review of accounting principles with emphasis on noncurrent assets, liabilities, and paid-in capital. The present value concept of evaluating investment proposals is introduced. Prerequisite: BUS 220. (W)

BUS 222 Intermediate Accounting **3 2 4**

A continued study of accounting principles with emphasis on retained earnings, financial statement analysis, correcting errors, and reporting price level change. Prerequisite: BUS 221. (S)

BUS 225 Cost Accounting **3 2 4**

A detailed study of systems of cost accounting including process, job orders, and standards costs. Usefulness of data to management is stressed. Prerequisite: BUS 121. (F)

BUS 229 Taxes I **3 2 4**

A study of the application of federal and state taxes to various businesses and business conditions including income, payroll, intangible, capital gain, and sales taxes and their uses. Prerequisite: BUS 121. (W)

BUS 230 Taxes II **3 2 4**

A study of the application of federal and state taxes to individuals, business partnerships, and corporations. Includes franchise, excise, gift, income, and inheritance taxes. Prerequisite: BUS 229. (S)

BUS 232 Sales Development **3 0 3**

A study of retail, wholesale, and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations is required. (S)

BUS 233 Personnel Management **3 0 3**

A study of the principles of organization and management of personnel: procurement, placement, training, performance checking, supervision, renumeration, labor relations, fringe benefits, and security. (F)

BUS 235 Business Management **3 0 3**

A study of the principles of business management including an overview of major functions of management such as planning, staffing, controlling, directing, and financing. Covers clarification of the decision making function versus the operating function. Includes role of management in business qualifications and requirements. Prerequisites: BUS 101, BUS 121. (S)

BUS 237 Wholesaling **3 0 3**

A study of the developments of wholesaling. Includes present day trends in the United States and functions of wholesaling. (D)

BUS 238 Problems of Public Administration, **3 0 3**

An analysis of contemporary problems related to the administration of public organization. Includes problems of authority, communication, control, leadership, and responsibility. Case studies are reviewed and resource people in the profession are consulted for their knowledge and personal experience in the field. (S)

BUS 239 Marketing **5 0 5**

A general survey of the field of marketing with a detailed study of the functions, policies, and institutions involved in the marketing process. (F)

BUS 240 Public Finance **3 0 3**

A study of the fundamental principles of public finance, the economics of government expenditure and the revenue policy, the shifting and the incidence of taxation, expenditure decisions and the cost-benefit analysis for the budgeting system, and the relations of government finance to its economy. Special emphasis is directed to expenditures for the taxation for the State of North Carolina and its local government. (F)

BUS 243 Advertising **3 2 4**

An examination of the role of advertising in a free economy and its place in the media of mass communications. Includes a study of advertising appeals, product and market research, selection of media, and means of testing effectiveness of advertising. Covers theory and practice in writing advertising copy for various media. (F)

BUS 245 Retailing **3 0 3**

A study of the role of retailing in the economy including development of present retail structure, functions performed, principles governing effective operation, and managerial problems resulting from current economic and social trends. (D)

BUS 246 Municipal Public Relations **3 0 3**

A course covering the complex areas of public opinions, public attitudes, and public information. Designed to teach all personnel to act efficiently in these areas and to make good public relations integral to the duty's administrative practice. (D)

BUS 247 Insurance **3 0 3**

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included. (S)

BUS 266 Budget and Record Keeping **3 0 3**

The basic principles, methods, and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the roles they play. Emphasis is on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning. Prerequisite: BUS 121. (D)

BUS 269 Auditing **3 2 4**

An examination of properly applicable internal control features, audit principles, and standards and procedures through which the student will identify the objectives and functions of auditing including aspects of financial statements such as proper and adequate disclosure in accordance with modern concepts of financial reporting. Emphasis is placed on the conceptual skills needed in auditing. Prerequisite: BUS 122. (S)

BUS 271 Office Management **3 0 3**

A study presenting the fundamental principles of office management with emphasis on the role of office management including its functions, office automation, planning, controlling, organizing, and actuating office problems. (S)

BUS 272 Principles of Supervision **3 0 3**

An introduction to the basic responsibilities and duties of the supervisor and his/her relationship to superiors, subordinates, and associates. Emphasis is on securing an effective work force and the role of the supervisor. Methods of supervision are stressed. (S)

BUS 275 Programming **3 0 3**

A course designed to provide the student with the basic concepts of programming for easy mastery of any specific system with the minimum of additional instruction. The logic required in computerized problem solutions is also stressed. Flowcharts and the COBOL language are combined to help the student meet the logic and programming objectives. Prerequisite: EDP 104. (F)

BUS 276 Money and Banking **3 0 3**

An application of money and banking theory and procedures including the functions of money, various phases of customer relations with banks, bank administrative policies, the Federal Reserve System, specialized financial institutions, and international monetary principles. Prerequisite: ECO 202. (S)

BUS 277 Application in Public Administration I **2 6 4**

A course providing observation and participation in the area of the student's special interest. Students are placed in local government departments to engage in specific research projects at a policy or administrative level. Examples of these projects are position classification survey, personnel policy, job specifications, performance appraisal study, employee attitude survey, employee handbook, pay plan, personnel audits, utilization of records, and suggestion of award systems. (F)

BUS 278 Application in Public Administration II **2 6 4**

A course providing observation and participation in the area of the student's special interest. Students are placed in local government departments to engage in specific research projects at a policy or administrative level. Examples of these projects are fiscal administration—local government budget and finance administration; economic approaches to urban problems—zoning, urban renewal, public housing, welfare problems, revenue sharing, and crime; and public finance—tax policies and taxation, budget determinations, and the budget process. (W)

BUS 279 Internship in Public Administration **1 18 7**

A course providing for participation in the activities of an administrative agency under the joint supervision of a faculty member and the agency. (S)

BUS 282 Governmental Accounting **3 0 3**

An application of accounting principles to government and problems related to governmental appropriations and allotments, encumberances, and fund accounting. Prerequisite: BUS 122. (W)

BUS 284 M&E Terminology and Vocabulary **3 0 3**

A course placing greater emphasis on an understanding of the terminology and vocabulary appropriate to the course of study and as it is used in a professional office. Prerequisite: 183M. (S)

BUS 285 Cost Records and Estimates **2 0 2**

A study of cost estimation, equipment, materials and labor takeoff, and overhead cost. The advantages and limitations of prorating items of cost are considered. Prerequisite: MAT 110 or approval of instructor. (SS)

BUS 1101 Cost Records and Cost Estimates **2 0 2**

A survey of estimates of cost (materials, labor, overhead, etc.). Materials cost deals with price and grade, costs of delivery and storage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover, and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. (D)

BUS 1103 Small Business Operations **3 0 3**

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. (SS)

BUS 1105 Industrial Organizations **3 0 3**

A study of the methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Includes an introduction to the competitive system and the factors constituting product cost. (SS)

BUS 1134 Personal Development **3 0 3**

A course designed to teach the student the importance of good personality and to develop the type of personality that will assist in job success. Emphasis is placed on the principles of grooming in dress, make-up, hygiene, and health. (D)

CARPENTRY

CAR 1101 Carpentry **3 15 8**

A brief history of carpentry and present trends of the construction industry. The course involves operation, care, and safe use of carpenters' hand tools and power tools in cutting, shaping, and joining construction materials. Major topics of study include theoretical and practical applications involving materials and methods of construction, building layout, preparation of site, footings and foundation, and wall construction, including form construction and erection. (D)

CAR 1102 Carpentry: Millwork and Cabinetmaking **3 15 8**

A course in cabinetmaking and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment is emphasized in learning methods of construction of millwork and cabinetry. Practical applications include measuring, layout, and construction of base and wall cabinets, built-in desk, door and window frames, stairs, and interior and exterior cornice and trim. Materials and finishes are also studied. Prerequisites: CAR 1101, DFT 1110. (D)

CAR 1103 Carpentry: Framing 3 15 8

A study of the principles and practices of frame construction beginning with the foundation sills and including floor joist, subfloor, wall studs, ceiling joist, rafters, bridging, bracing, sheathing, and interior wall partition. Roof construction includes the layout and construction methods of common types of roofs using standard rafter construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to the coordination of carpentry work with installation of the mechanical equipment such as electrical, air conditioning, heating, and plumbing. Prerequisites: CAR 1101, DFT 1111. (D)

CAR 1104 Carpentry: Finishing 3 18 9

A study of exterior and interior trim and finish carpentry, completing the general carpentry program. Includes materials and methods used in finishing carpentry such as exterior cornice, door, and window trim; interior flooring; door and window facing; moldings; cornice construction; installation of hardware; and installation of built-in equipment and cabinets. Prerequisites: CAR 1103, DFT 1111. (D)

CAR 1113 Carpentry: Estimating 3 3 4

A practical course in quantity "take off" from prints of jobs performed by the carpenter, including figuring the quantities of materials needed and costs of building various components and structures. Prerequisites: DFT 1111, MAT 1112. (D)

CAR 1114 Building Codes 3 0 3

A study of building codes and the minimum requirements for local, county, and state construction regulations. Involves safety, sanitation, mechanical equipment, and materials. Also includes a review of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code. Prerequisites: CAR 1103, CAR 1104. (D)

CHEMISTRY

CHM 101 General Chemistry I 3 3 4

A basic course designed to provide a foundation of essential facts and underlying principles in chemistry. Fundamental concepts, chemical symbols, fundamental particles, atomic structure, use of periodic chart, and scientific measurements are covered. (F)

CHM 102 General Chemistry II 3 3 4

A continuation of CHM 101 to include a study of chemical bonding, chemical kinetics, kinetic theory of gases, solutions, chemical thermodynamics, and electrochemistry. Prerequisite: CHM 101. (W)

CHM 103 General Chemistry III 3 3 4

A continuation of CHM 102 with a study of acid-base reactions, oxidation-reducing reactions in water and the environment, air pollution, introduction to organic and biochemistry, and nuclear chemistry. Prerequisite: CHM 102. (S)

CHM 201 Organic Chemistry **3 3 4**
A study of the nature and characteristics of chemical bonds in hydrocarbons, classification of hydrocarbons, stereochemistry, resonance, tautomerism and aromaticity, chemical reactivity and molecular structure, organic reactions, and chemistry of natural products. Prerequisites: CHM 101, CHM 102, and CHM 103. (F)

CHM 202 Organic Chemistry **3 3 4**
A continuation of Chemistry 201. Prerequisite: CHM 201. (W)

CHM 203 Organic Chemistry **3 3 4**
A continuation of Chemistry 202. Prerequisite: CHM 202. (S)

CHM 225 Biochemistry **3 0 3**
A brief introductory course covering an elementary study of the physical and chemical nature of the cell and biochemical properties and functions of cellular components. Also covers metabolism and the biological importance of carbohydrates, fats, proteins, enzymes, nucleic acids, and hormones. This course should be of interest to allied health and para-medical students. Prerequisite: CHM 103. (D)

COSMETOLOGY

COS 1001 Scientific Study I **4 6 6**
A course for beginners in cosmetology. Includes a study of professional ethics, grooming and personality development, sterilization, sanitation, first aid and bacteriology, cosmetology law, anatomy, chemistry, nail disorders, manicuring, hair, scalp, skin, and disorders pertaining to the hair, scalp, and skin. (F)

COS 1002 Scientific Study II **5 0 5**
A classroom study of skin, scalp, hair, nails, and their disorders. Includes salesmanship, permanent waving, marcelling, relaxing, hairdressing, wigs, and hair coloring. Prerequisite: COS 1101. (F)

COS 1003 Scientific Study III **5 0 5**
A classroom study of anatomy, manicuring, chemistry, cosmetics-facials, hair styling, theory of massage, scalp treatments, superfluous hair removal, grooming, and hygiene. Prerequisite: COS 1002. (F)

COS 1004 Scientific Study IV **5 0 5**
A classroom study of chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, beauty salon salesmanship management, electricity, cold waving, and hair shaping. Prerequisite: COS 1003. (W)

COS 1005 Public Relations for Cosmetologists **3 0 3**
A course focusing on public relations as it pertains to the cosmetology profession. Students must have accumulated 1200 hours previously in a cosmetology school as a prerequisite for the course. Prerequisites: COS 1004, COS 1044. (D)

COS 1006 Beauty Salon Business Operations 3 0 3

A course designed for advanced students of cosmetology who have completed 1200 contact hours in a school of cosmetic art. The student will learn the basic problems of business operations, the types of business organizations, record keeping for a small business, financial aspects of a business, and proper physical facilities of a beauty salon. Prerequisites: COS 1004, COS 1044. (D)

COS 1011 Mannequin Practice 1 18 7

A study of finger waving, pin curling, rollers, marcelling, hair relaxing, shampooing and rinses, scalp treatment, hair cutting, permanent waving, hairdressing and combing, hair tinting, bleaching, frosting, streaking, wig care, and styling. Prerequisite: COS 1004. (W)

COS 1022 Clinical Application I 0 24 8

A study of live model performance. This course is designed to develop skills and understanding of techniques and applications in the areas of bacteriology, pin curling, finger waving, rollers, permanent waving, marcelling, chemical relaxing, hair coloring, and hair cutting. Prerequisite: COS 1011. (S)

COS 1022-1 (Part-time) 0 6 2

COS 1022-2 (Part-time) 0 18 6

COS 1033 Clinical Application II 0 24 8

A course providing continued laboratory practice and application of techniques in hair shaping, professional ethics, manicuring, chemistry, cosmetics-facials, hair styling, hair coloring (rinses, etc.), and scalp treatments. Prerequisite: COS 1022. (SS)

COS 1033-1 (Part-time) 0 15 5

COS 1033-2 (Part-time) 0 9 3

COS 1044 Clinical Application III 0 24 8

A continued study of laboratory practices in chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, cold waving, and hair shaping. Prerequisite: COS 1033. (D)

COS 1044-1 (Part-time) 0 3 1

COS 1044-2 (Part-time) 0 21 7

COS 1055 Chemistry Relating to Cosmetology 3 0 3

An in-depth study of the advanced principles of chemistry as related to cosmetology. Includes definitions, descriptions, and identification through classroom study, examinations, and demonstrations on live models. Prerequisite: Successful completion of 1200 school hours and completion of COS 1004 and COS 1044. (D)

COS 1066 Hairstyling II 1 18 7

An in-depth study of the advanced principles of hairstyling. Includes hair fashion, advanced hair cutting, hair coloring, permanent waving techniques, and analysis. Emphasis is placed on design to include structure, balance, harmony, rhythm, and emphasis. Also consists of constructive and remedial techniques for damaged hair. Students must demonstrate principles and techniques on live models. Prerequisite: Sucessful completion of 1200 school hours and completion of COS 1004 and COS 1044. (D)

DRAFTING

DFT 101 Technical Drafting **2 9 5**

An introductory study of the graphic language, principles of mechanical drawing, and orthographic projection. Skills and techniques are included in the areas of freehand lettering, geometrical constructions, sketching and shape description, multiview project, and sectional views. (F)

DFT 101F Furniture Drafting **2 6 4**

An introduction to the field of drafting through the study of the graphic language. The student learns how to freehand letter, construct geometric figures, do freehand sketching, visualize shapes of objects, make multiview drawings, and construct sectional views. (F/W/S)

DFT 102 Technical Drafting **2 9 5**

The application of sectional views to more complex problems, primary and secondary auxiliary views, simple and successive revolutions, and the importance of shop processes, dimensioning, and tolerancing. Includes introduction to drawing of threads, fasteners, and springs and the execution of design and working drawings. Prerequisite: DFT 101. (W)

DFT 102-1 (Part-time) **1 6 3**

DFT 102-2 (Part-time) **1 3 2**

DFT 102F Furniture Drafting **2 6 4**

A continuation in the study of drafting and how it relates to the furniture industry. Construction details are drawn. Includes drawing joints used in furniture construction. The student makes a variety of drawings of various pieces of furniture. (F/W/S)

DFT 103 Technical Drafting **2 9 5**

A study of the practices of axonometric projection, oblique projection, and perspective projection. Intersections and developments are studied, along with the drawing of gears, cams, and electronic diagrams and reproduction and control of drawings. Prerequisite: DFT 102. (S)

DFT 103-1 (Part-time) **1 6 3**

DFT 103-2 (Part-time) **1 3 2**

DFT 103F Furniture Drafting **2 6 4**

A course designed to aid the student in freehand sketching for the purpose of communicating in the shop. Simple shapes are studied and drawn. The student progresses from the simple to the more complex drawings. Shading is also studied. (F/W/S)

DFT 104 Blueprint Reading: Mechanical **0 3 1**

A study of the interpretation and reading of blueprints with information on the basic principles of the blueprint, including lines, dimensioning procedures, and notes. (D)

DFT 105 Blueprint Reading and Sketching **0 3 1**

A continued practice in interpretation of blueprints as they are used in industry. Includes a study of prints supplied by industry, making plans of operations, introduction to drafting room procedures, and sketching as a means of passing on ideas, information, and processes. Prerequisite: DFT 104. (D)

DFT 110 Mechanics Drafting Interpretation I 1 3 2

A study in the interpretation and reading of blueprints. Includes development of the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Provides information on the basic principles of lines, views, dimensioning procedures, and notes. Also includes a study of components that make up the front suspension, differential assembly, and brake assemblies. (F)

DFT 111 Mechanics Drafting Interpretation II 1 3 2

A study in interpretation and reading of schematic prints and diagrams. Includes making sketches of electrical wiring and fuel system components for automotive engines and other internal combustion engines. Also covers learning to identify the various components of the systems by sketching and labeling parts. Provides practice in tracing wiring systems and diagnosing trouble by using schematics and diagrams found in the automotive service manuals. Prerequisite: DFT 110. (W)

DFT 112 Auto Body Drafting Interpretation 1 3 2

A study in the interpretation and reading of blueprints. Includes the development of the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Provides information on the basic principles of lines, views, and dimensioning procedures as applied to the auto body. (S)

DFT 113 Blueprint Reading: Mechanical 0 3 1

A study of the interpretation and reading of blueprints. Includes information on the basic principles of the blueprint lines, dimensioning procedures, and notes. (F)

DFT 114 Blueprint Reading: Mechanical 0 3 1

A further practice in interpretation of blueprints as they are used in industry. Includes a study of prints supplied by industry, making plans of operations, introduction to drafting room procedures, and sketches as a means of passing on ideas, information, and processes. Prerequisite: DFT 113. (W)

DFT 115 Blueprint Reading: Mechanical 0 3 1

An advanced course in blueprint reading and sketching as related to detail and assembly drawings used in machine shops. Includes the interpretation of drawings of complex parts and mechanisms for features of fabrications, construction, and assembly. Prerequisite: DFT 114. (S)

DFT 116 Blueprint Reading: Building Trade 0 3 1

A study of the principles of interpreting blueprints and specifications common to the building trades. Includes development of proficiency in making three-view and pictorial sketches. (D)

DFT 117 Blueprint Reading and Sketching 0 3 1

A continued study of the principles of interpreting blueprints and specifications common to the building trades. Provides practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches, and cavity wall construction. Aims for development of proficiency in making three-view and pictorial sketches. Prerequisite: DFT 116. (D)

DFT 118 Blueprint Reading and Sketching **0 3 1**

A course designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings are studied with emphasis on the plot plan, basement and/or foundation plan, walls, and various detailed drawings of masonry work. Prerequisite: DFT 107. (D)

DFT 119 Blueprint Reading: Electrical **0 3 1**

A study in interpretation of schematics, diagrams, and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams, and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes are part of this course. Prerequisite: DFT 106. (F)

DFT 120 Blueprint Reading: Welding **0 3 1**

A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use, and application of welding symbols, abbreviations, and specifications are included. Prerequisite: DFT 113. (W)

DFT 121 Pattern Development and Sketching **0 3 1**

A continued study of welding symbols, methods used in layout of sheet steel, and sketching of projects, jigs, and holding devices involved in welding. Special emphasis is placed on developing pipe and angle layouts by the use of patterns and templates. Prerequisite: DFT 113. (S)

DFT 201 Technical Drafting **3 9 6**

An introduction to structural drawings, topographical drawings and mapping, pipe drawings, welding representation, graphs, alignment charts, empirical equations, and graphical mathematics. Prerequisite: DFT 103. (F)

DFT 201-1 (Part-time) **2 6 4**

DFT 201-2 (Part-time) **1 3 2**

DFT 204 Descriptive Geometry **2 4 4**

A graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems are stressed with analytical verification where applicable. Visualization is stressed on every problem. Prerequisites: DFT 102, T-MAT 102. (F)

DFT 205 Design Drafting I **2 8 5**

An introduction to basic design in the study of motion transfer mechanisms as they relate to power trains. Principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings, and simplified drafting practices constitute areas of study. Various methods of specifying materials and workmanship are an integral part of the course. Prerequisites: DFT 204, T-MAT 102, PHY 102. (W)

DFT 206 Design Drafting II **2 8 5**

A research course in solving a problem in design by consulting various manuals and periodicals and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawings, assembly and sub-assembly drawings, pictorial drawings, exploded assembly, patent drawings, and specifications are required as a part of the problem. Prerequisites: DFT 205, MEC 210. (S)

DFT 211 Mechanisms **3 2 4**

An examination of mathematical and drafting room solutions of problems involving the principles of machine elements. Includes a study of motions of linkages, velocities, and acceleration of points within a link mechanism and layout methods for designing cam, belts, pulleys, gears, and gear trains. Prerequisites: DFT 201, DFT 204, T-MAT 103, PHY 106. (W)

DFT 212 Jig and Fixture Design **2 6 4**

A study of commercial standards, principles, practices, and tools of jig and fixture design. Individual projects and design work are assigned to acquaint the student with the types of jigs and fixtures and their design. Prerequisites: DFT 205, DFT 211. (D)

DFT 1207 Machine Drafting **1 5 3**

An introductory course in the use of instruments, lettering, orthographic drawings, and sections and views necessary to provide proper views. Emphasis is given to dimensioning. Cam layouts, motion diagrams, and timing are surveyed. Prerequisite: DFT 115 or approval of instructor. (D)

DFT 1216 Blueprint Reading **0 3 1**

A course based on industrial blueprints and standards and covering the difference between operation sheets and detailed tool drawings. Includes assembly drawings. Sketching from finished drawings to provide a better visual picture of parts is stressed. Prerequisite: DFT 1207 or approval of instructor. (D)

DRAMA

DRA 110 Recreational Drama **1 4 3**

An activity course exploring the use of drama in a recreational setting with emphasis placed upon the type of dramatic activities which can be used effectively with children, adults, and special groups. (F)

DRA 201 Introduction to Drama **2 2 3**

A survey of the basic technologies of staging plays designed to acquaint students with the techniques, arts, and sciences involved in bringing a play to an audience and to make them aware of the variety of talents, skills, and abilities necessary to produce a play. (D)

ECONOMICS

ECO 108 Consumer Economics **3 0 3**

A course designed to help the student use resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing finances, increasing resources, and in better understanding the economy in which he/she believes. (W)

ECO 201 Principles of Economics I **3 0 3**

A survey of basic economics. Includes the beginning of economic life, archetype preindustrial economics, the beginning of economics as a science, economic revelation, classical economics, and modern economics theory. (D)

ECO 202 Principles of Economics II 3 0 3

A study of economic activity, monetary policy, fiscal policy, the public budget, taxation, price theory, and competition. Prerequisite: ECO 201. (W)

ECO 203 Principles of Economics III 3 0 3

The role of nonprice competition, international trade and payment, economic development, and comparative systems. Prerequisite: ECO 202. (S)

ECO 204 Industrial Relations 3 0 3

A course emphasizing the history of the labor movement in the United States, the development of methods and strategies by labor organizations and by management, the shift in the means of public control, and the factors of income and economic security. Prerequisite: ECO 201. (S)

EDUCATION

EDU 101 Child Growth and Development 4 0 4

A study of the sequential development of children from infancy to seven years of age. Emphasis will be placed on the gross motor development, fine motor development, language development, and socio-emotional development of the young child. Students will be given an opportunity to assess the development of and design tasks appropriate for children at different stages of development. (F)

EDU 102 Child Growth and Development 4 0 4

A study of the sequential development of children from infancy to seven years of age. Emphasis will be placed on the gross motor development, fine motor development, language development, and socio-emotional development of the young child. Students will be given an opportunity to assess the development of and design tasks appropriate for children at different stages of development. (W)

EDU 103 Child Growth and Development 4 0 4

A study of the sequential development of children from infancy to seven years of age. Emphasis will be placed on the gross motor development, fine motor development, language development, and socio-emotional development of the young child. Students will be given an opportunity to assess the development of and design tasks appropriate for children at different stages of development. (S)

EDU 111 Seminar and Practicum 0 2 1

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem-solving activities relating to preschool children. Prerequisite: Completion of first quarter's course work or approval of instructor. (W)

EDU 112 Seminar and Practicum 0 4 2

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem-solving activities relating to preschool children. Prerequisite: Completion of EDU 111. (S)

EDU 201 Introduction to Education **3 0 3**

A study of education as an institution in society. Emphasis is on the educational system in the United States, its functions, organization, and history. (S)

EDU 202 Pre-School Education **3 0 3**

A study of the recent trends in early childhood education, current preschool education models, and educational philosophy of early childhood education. Emphasis is placed on experiences, facilities, media, and planning and implementing appropriate programs of various levels of childrens' development. (F)

EDU 203 Health and Nutrition **3 0 3**

A study of basic nutrition with emphasis on methods of helping young children and their families learn nutritional concepts for more healthful living. (F)

EDU 220 Methods I **3 0 3**

A course to examine the language development of children in relation to adult models and the child's early experiences. Case studies will provide opportunities to analyze problems of adult-child communication and to develop guidelines for establishing effective communication patterns with children. Exercises to develop better listening skills will be provided. Media used in reading, handwriting, spelling, and language will be examined. (F)

EDU 221 Methods II **3 0 3**

A course to enable the student to select activities and materials for developing mathematic and science experiences for preschool children. The student will learn how to assist children in manipulating, experimenting, and discovering basic number and science concepts. (S)

EDU 230 Seminar and Practicum **0 6 3**

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem solving activities relating to preschool children. Prerequisite: EDU 112. (F)

EDU 231 Seminar and Practicum **0 8 4**

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem solving activities relating to preschool children. Prerequisite: Completion of EDU 230. (W)

EDU 232 Seminar and Practicum 0 12 6

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem solving activities relating to preschool children. Prerequisite: EDU 231. (S)

ELECTRICAL

ELC 100 Electronic Fundamentals 3 0 3

A study of the use of AC/DC currents and circuits as they are employed in audiovisual equipment. The course will be an overview of electronics. (F)

ELC 101 Basic Electricity 2 3 3

A course in the basic understanding and application of electricity to modern industrial machinery. Includes a study of direct current motors, motor controls and protecting devices, transformer, and the industrial applications of this equipment. (D)

ELC 112 Alternating and Direct Current 2 6 4

A study of the electrical structure of matter and electron theory and the relationship between voltage, current, and resistance. Includes analysis of direct current circuits by Ohm's Law and Kirchhoff's Law. Covers fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Also includes analysis of alternating current circuits. (F/S)

ELC 113 Alternating and Direct Current Machine Controls 2 6 4

A course providing the basic concepts of AC and DC machines and simple control circuits. Includes basic meter and test equipment reading and care. Prerequisite: ELC 112. (F)

ELC 115 National Electrical Code 3 0 3

A course providing instruction and application in the use of the current National Electrical Code and how it aids those concerned with electrical safety in understanding the scope and intent of the National Electrical Code. (S)

ELC 119 Industrial Electronic Control 2 6 4

A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, basic solid state devices, and controls as related to industries. Prerequisites: ELC 112, ELC 113. (W)

ELC 121 Electrical Trouble-Shooting 2 3 3

A training course in making electrical adjustments and related maintenance operation. Includes use of test equipment and circuit logic for fast and efficient location and repair of electrical circuits. Prerequisites: ELC 112, ELC 113, ELC 119. (S)

ELC 1112 Direct and Alternating Current 4 12 8

A study of the electrical structure of matter and electron theory and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Also includes an analysis of direct current circuits by Ohm's Law and Kirchhoff's Law, a study of the sources of direct current voltage potentials and fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Covers analysis of alternating current circuits. (D)

ELC 1112-1 (Part-time) 2 6 4

ELC 1112-2 (Part-time) 2 6 4

ELC 1113 Alternating Current and Direct Current and Machines and Controls 4 12 8

A study providing fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Includes instruction in the use of electrical test instruments in circuit analysis, the basic concepts of AC and DC machines and simple system controls, and an introduction to the type control used in small appliances such as thermostats and timers or sequencing switches. Prerequisites: ELC 1112, MAT 1115. (D)

ELC 1113-1 (Part-time) 2 6 4

ELC 1113-2 (Part-time) 2 6 4

ELC 1121 Electrical Machines and Control 2 2 3

An introduction to the construction, operation and utilization of direct current and alternating current machines. Covers familiarization with the various types of machine control devices. Prerequisite: ELC 1112. (D)

ELC 1122 Electrical Maintenance 3 6 5

A study of those parts of the electrical code which affect the work of the industrial maintenance electrician. Practical experience is provided in wiring, installing, and connecting the various types of services for lighting, heating, and power installations. Training is provided in trouble shooting in the identification and testing of circuits, in making mechanical adjustments, and related maintenance operations. Schematic diagrams are used showing the plan of operation for each system. Prerequisites: ELC 1113, ELC 1121. (D)

ELC 1124 Residential Wiring 5 9 8

A course providing instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboard, lighting, fusing, wire sizes, branch circuits, conduits, and use of the National Electrical Code regulations in actual building mock-ups. Prerequisites: ELC 1113, DFT 1110. (D)

ELC 1124-1 (Part-time) 2 6 4

ELC 1124-2 (Part-time) 3 3 4

ELC 1125 Commercial and Industrial Wiring 2 9 5

A study in layout, planning, and installation of wiring systems in commercial and industrial complexes with emphasis upon blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems. Prerequisites: ELN 1118, ELC 1124. (D)

ELC 1125-1 (Part-time) 2 6 4

ELC 1125-2 (Part-time) 0 3 1

ELECTRONIC DATA SYSTEMS

EDP 101 Computers and Programming I (RPG Card) 4 4 6

An introduction to computers and computer programming. The course includes history of computers, data representation, numbering systems, flow charting, and an introduction to the RPG programming language. (F)

EDP 102 Computers and Programming II (RPG Disk-Tape) 4 4 6

A continuation of EDP 101 in which students learn advanced features of RPG and file organization on disk and tape. Prerequisite: EDP 101. (W)

EDP 103 Computers and Programming III (COBOL Card) 4 4 6

A study of the fundamentals of the COBOL language in a card-oriented environment. Prerequisite: EDP 102. (S)

EDP 104 Introduction to Data Systems 3 2 4

An introduction to the fundamental concepts and operational principles of data systems. The material and presentation are designed to familiarize non-data systems students with computer systems and their uses. (S)

EDP 108 Assembler Language 2 4 4

The study of symbolic computer languages with emphasis on a particular example of such a language. The student develops program logic and writes programs using assembler language to solve appropriate assigned problems. (D)

EDP 125 Computer Programming 2 2 3

A course designed to help students learn to write and execute computer programs in the FORTRAN language. Computerized solutions of problems in the mathematical, scientific, and engineering areas are emphasized. (F)

EDP 204 Computers and Programming IV (COBOL Disk-Tape) 4 4 6

A continuation of EDP 103 in which the student applies advanced procedures of file organization on disk and tape, utilizing structured COBOL and the report writer feature. Prerequisite: EDP 103. (F)

EDP 208 Systems Orientation 4 4 6

A survey of the techniques utilized in the development of information systems with special emphasis on the role of computers. Prerequisite: EDP 204. (S)

EDP 214 Practicum I 0 15 5

A course providing practical experience in a data systems installation. The time and location vary. Prerequisite: EDP 204 and approval of instructor. (W)

EDP 215 Practicum II 0 15 5

An opportunity for the student to spend time in a data systems installation. Time and place vary. In lieu of this course, the instructor and student might agree to an independent study. Prerequisite: EDP 214 and approval of instructor. (S)

EDP 217 Data Processing Project 1 8 5

A quarter devoted to the solution of a practical case study with minimum supervision. Prerequisite: approval of instructor. (W/SS)

EDP 220 Applied Business Systems 3 0 3

A continuation of management systems applied to information data flow. Practical work in systems flow charting and analysis is implemented. The conduction of feasibility studies; the preparation and maintenance of standard practice, policies, and organization manuals; and computer applications are stressed. Prerequisite: approval of instructor. (D)

EDP 221 Programming Language Survey 2 2 3

An overview of developments in computer systems and software. The student is encouraged to develop expertise in an interactive language such as APL, BASIC, or CPS. Prerequisite: EDP 208. (S)

EDP 222 User/Vender Programs 2 2 3

A study of the documentation, application, and use of various user/vender supplied programs. Prerequisite: approval of department. (D)

ELECTRONICS

ELN 124 Electronics Fundamentals 2 4 4

A course designed to develop a thorough understanding of basic electronic theory and principles and to introduce the student to the concepts, equipment, and components necessary to this understanding. Application of principles in the laboratory is an integral part of the course. Prerequisite: ELC 112. (F/W)

ELN 134 Intermediate Electronics 2 4 4

A direct continuation of ELN 124. Requires students to work with individual circuits and their application. Emphasis is placed on power supplies, amplifiers, oscillators, transmitters and receivers, transmission lines and antennas, switching and gating circuits, as well as the test equipment associated with the above. Identification, design and analysis, and determination of expected outputs from specific inputs of circuits are an integral part of the course. Laboratory experiments are used to substantiate theory and develop measurement techniques. Prerequisite: ELN 124. (W/S)

ELN 224 Advanced Electronics 2 4 4

A continuation of ELN 134. Includes application of handy rule-of-thumb approximations and simple, practical approaches to designing solid-state circuits. Students also learn how to service the solid-state and digital circuits and components in home, laboratory, and industrial systems. A significant segment of the course deals with an introduction of micro-wave theory and measurements. Prerequisite: ELN 134. (S/SS)

ELN 234 Digital Electronics 2 4 4

A systematic introduction to the digital circuits, the concepts, and the systems that are basic in nature. The goal is to lead the student from the simplest discrete switch devices, such as semiconductor diodes and transistors to the late high-speed integrated circuits and digital instrumentation systems. Laboratory experiments are utilized to substantiate theory. Prerequisite: ELN 224. (SS)

ELN 1118 Industrial Electronics Fundamentals **4 9 7**

A study of basic theory, operating characteristics, and application of vacuum tubes such as diodes, triodes, tetrodes, pentodes, and gaseous control tubes. Includes an introduction to amplifiers using triodes, power supplies using diodes, solid state theory, and other basic applications. Prerequisite: ELC 1113. (D)

ELN 1118-1 (Part-time) **2 6 4**

ELN 1118-2 (Part-time) **2 3 3**

ELN 1119 Industrial Electronic Controls **4 12 8**

A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyratron tubes, solid state devices, and other basic types and systems commonly found in most industries. Prerequisite: ELN 1118. (D)

ELN 1119-1 (Part-time) **2 6 4**

ELN 1119-2 (Part-time) **2 6 4**

ENGINEERING GRAPHICS

EGR 101 Engineering Graphics I **2 4 3**

An introduction to the field of drafting in which the student begins the study of lettering, geometrical construction, projections, sections, auxiliary projection, revolution, pictorial drawing, intersection, and development. The drawing of fasteners, springs, and gears; detail and assembly drawings; and tracing and reproduction methods are studied. (W)

EGR 102 Engineering Graphics II **2 4 3**

An introduction to different engineering aspects by lecture-lab and student involvement. Areas covered include precision measurement as used in the machine tool industry, electronic gaging, and surveying, including an introduction to the transit, tape controlled equipment, and other topics as the need arises. (S)

ENGLISH

ENG 100 Grammar **3 2 3**

A study of English grammar designed to aid the student in the improvement of self-expression. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 101 Grammar and Composition **3 2 3**

The study of the use of the English language through the mediums of grammar and written composition. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 102 English Composition **3 0 3**
The study of the English language through the medium of written composition, with emphasis on the development of the essay and the research paper. Prerequisite: ENG 101 or ENH 101. (W/SS)

ENG 103 Introduction to Literature **3 0 3**
An introduction to three genres of literature: poetry, drama, and fiction. Course is divided into three seminars, each a study of one of the three genres. Prerequisite: ENG 102 or ENH 102. (F/W/S/SS)

ENH 101 English Honors: Composition **3 0 3**
An interpretative study of classic and current fiction, with emphasis on the development of critical thought, composition skills, and research technique. Prerequisite: English Placement Inventory and recommendation. (D)

ENH 102 English Honors: Composition **3 0 3**
An interpretative study of poetry, with emphasis on scholarly analysis, oral readings, and composition skills. Prerequisite: ENG 101 or ENH 101 with recommendation. (D)

ENH 103 English Honors: Literary Analysis **3 0 3**
A study of the development of drama from the time of the fifth-century Greeks to the twentieth century, with emphasis on both oral and written interpretative skills. Prerequisite: ENG 102 or ENH 102 with recommendations. (D)

ENG 104 Report Writing **3 0 3**
The study of organization and techniques of modern report writing, with emphasis on developing typical reports, using writing techniques and graphic devices. Prerequisite: ENG 102 or ENH 102. (W/S/SS)

ENG 105 Business Correspondence **3 0 3**
A study of the basic techniques in writing business communications, with emphasis on the writing of clear, forceful, and psychologically sound letters and on the composing of clear and objective memos. (F/W/S/SS)

ENG 110 Studies in Fiction **3 0 3**
The study of fiction and the major philosophical concepts and social conflicts which are presented in fiction. Prerequisite: ENG 103. (D)

ENG 201 English Literature **3 0 3**
A survey of English literature from the Anglo-Saxon invasion to the Restoration Period, 449-1660. Prerequisite: ENG 103 or ENH 103. (F)

ENG 202 English Literature **3 0 3**
A continuation of English 201 beginning with the Restoration Period, 1660, to Accession of Victoria, 1837. Prerequisite: ENG 103 or ENH 103. (W)

ENG 203 English Literatury **3 0 3**
A continuation of English 201 and 202 beginning with the Accession of Victoria, 1837, to the twentieth century. Prerequisite: ENG 103 or ENH 103. (S)

ENG 204 American Literature **3 0 3**
The study of American literature from the Colonial Period through the Romantic Period, from 1607 to 1865. Prerequisite: ENG 103 or ENH 103. (F)

ENG 205 American Literature 3 0 3

The survey of American literature from the Realistic Period through the Contemporary Period, from 1865 to the present. Prerequisite: ENG 103 or ENH 103. (W)

ENG 206 American Literature 3 0 3

The study of the major American writers of the modern period, with a concentration in the novel and the drama. Prerequisite: ENG 103 or ENH 103. (S)

ENG 209 Spanish Literature in Translation 3 0 3

A study of the masterpieces of Spanish literature in the drama, poetry, short story, essay, and the novel. Not to satisfy the foreign language requirement. Prerequisite: ENG 103 or ENH 103. (D)

ENG 1102 Communication Skills 3 0 3

A study of effective communication, with emphasis on language usage in speaking and writing.

FURNITURE

FUR 102 Construction and Billing I 1 3 2

A course emphasizing proper construction of case goods and frame stock and including the study of basic construction theory; identification of furniture construction terms; interpretation and reading of furniture working drawing; information on blueprint lines, dimensioning, procedure, and notes; and basic knowledge of materials. (W)

FUR 103 Construction and Billing II 1 3 2

A continuation of FUR 102 with emphasis on making an accurate bill of material of each basic piece of furniture from factory drawings and specifications. Effect of construction on material, machine, and routing is discussed. Prerequisite: FUR 102 or approval of instructor. (S)

FUR 104 Characteristics of Wood 2 0 2

The study of basic structure of woods used by the furniture industry. Emphasis is placed on the characteristics that mostly affect these woods in manufacturing—moisture, kiln drying, machineability, glueing, and handling. Attention is given to veneers, particle board, and hardboard. Field trips to production plants are included. (F)

FUR 106 Abrasive Materials and Glues 2 2 3

A study of the types and materials in adhesives and abrasives currently used by the furniture industry. The course deals with applications, procedures, and equipment. Emphasis is given to defects and corrective measures for both categories. (S)

FUR 107 Finishing Methods and Materials 2 2 3

A study of the finishing methods and materials now used by the furniture industry—process of color, filling of pores, sealing, glazing, body coats, and rubbing. Emphasis is placed on various methods of drying. Covers advantages and disadvantages of material handling, equipment needs, spray guns, conveyors, and rubbing. (SS)

FUR 108 Production Equipment I 4 0 4

A course dealing with operating procedure, capacities, and safety of woodworking equipment used in the rough machine. Includes laminating, finish machine areas, cutting tools, operational responsibilities, and field trips to production plants. (F)

FUR 109 Production Equipment II 4 0 4

A continuation of FUR 108 dealing with preassemble sanding and cabinet assembly equipment. Covers special equipment for chair manufacturing, carving, and multipurpose equipment. Includes attention to material handling and department layout and field trips to production plants. Prerequisite: FUR 108. (W)

FUR 112 Routing, Scheduling, and Process 2 2 3

A comprehensive study of materials and methods of furniture manufacturing. Includes the flow of material through various departments and equipment as now used by industry; the study of main and alternate processes and their relation to cost, labor, waste, and time; the use of charts and the study of material properties and their relation to the work cycle. Prerequisites: FUR 104, FUR 102, FUR 108 or approval of instructor. (W)

FUR 201 Practicum 0 9 3

A course consisting of supervised work experience alternating with the educational program on a schedule satisfactory to employers, the institution, and the student. Enables the student to perform a planned variety of activities required of his/her specialty. The work periods are carefully planned and closely supervised by the employer and in the institution to provide experiences and responsibilities commensurate with the capabilities of the student. An official agreement among the education institution, the student, and the employer identifies the sequence of activities to be performed by the student and defines the supervisory responsibilities for the educational element of the work. Prerequisite: student registered in a two-year occupational program in the institution. (D)

GEOGRAPHY

GEO 201 Physical Geography 3 2 4

A course in physical science that emphasizes world and water formations, weather, soils, vegetation, map reading, and the relation of human activity to the physical environment. Lab reports provide practical experience in dealing with above concepts. (S)

GEO 202 Regional Geography 3 0 3

A survey of the major world regions with emphasis on the techniques of thinking geographically about world problems. (D)

HEALTH

HEA 100 Cardiopulmonary Resuscitation and Multimedia First Aid 0 2 1

A course designed to train in cardiopulmonary resuscitation and multimedia first aid procedures. Students completing both components of the course are certified by the American Red Cross. (D)

HEA 200 Allied Health Management Procedures 3 0 3

A course designed for students in health care fields who have had no experience in management. Includes interpersonal relationships, communications, personnel management, and work organization. Motivation and the practical aspects of organizational planning are discussed along with problem solving techniques and the ethical aspects of management. (SS)

HISTORY

HIS 101 Western Civilization 3 0 3

A survey of the ancient near East, the classical civilizations of Greece and Rome, and the new religious civilizations of the Middle Ages. (F/SS)

HIS 102 Western Civilization 3 0 3

A survey of the Ages of the Renaissance and the Reformation; exploration, colonization, and the Commercial revolution; the Age of Absolutism; the Age of Democratic Revolutions; and the Napoleonic Era. (W/SS)

HIS 103 Western Civilization 3 0 3

A survey of the Industrial Revolution, the European political revolts of 1830 and 1848, the political unification of Germany and Italy, World War I and its aftermath, the rise of European totalitarian states, the upsurge of nationalism in Africa and the Orient, World War II, and the Cold War Communist-Free World competitive coexistence. (S/SS)

HIS 201 American History 3 0 3

The study of the origins and development of the United States through the presidential election of 1840. (F)

HIS 202 American History 3 0 3

The study of the history of the United States covering the sectional conflict, the Civil War Reconstruction, and the Black experience in America through the 1960's. (W)

HIS 203 American History 3 0 3

The study of the history of the United States in the twentieth century. (S)

HIS 206 North Carolina History 3 0 3

A survey of events and developments occurring in the history of the state. Includes European background and early settlers; the Colonial, Antebellum, and Reconstruction periods; and the Modern period. (D)

HIS 207 American Ethnic 3 0 3

A course surveying American history from the perspective of ethnic minority groups including Afro-Americans, American Indians, Oriental-Americans, and Spanish-Americans. It seeks to aid students in understanding the multiethnic composition of this nation of immigrants and to increase acceptance of different peoples. (D)

HUMAN DEVELOPMENT

HDEV 102 Human Potential Seminar 0 2 1

A structured group process with emphasis on positive and constructive feedback and self-awareness. (F)

HDEV 103 Career Decision Making 1 0 1

A course designed to aid the student in making a career-oriented assessment of abilities, personality needs, interests, and values, with additional emphasis on current manpower trends. (F)

HUMANITIES

HUM 101 Personal and Cultural Appreciation I 4 0 4

A stystematic study of the great ideas of each period of western civilization and the influence on the artistic, dramatic, literary, and musical expressions of these periods, with an emphasis on developing a greater appreciation and understanding of people and their culture. Prerequisite: ENG 103 or ENH 103. (D)

HUM 102 Humanities in the Twentieth Century 4 0 4

A critical study of specific selections from modern literature, art, and philosophy and their relevance to American life in the rapidly changing technological and nuclear age. Prerequisite: ENG 103 or ENH 103. (D)

HUM 201 American Women's Studies 3 0 3

A study of the history, literature, and social roles of women from colonial America to the present. (D)

INDEPENDENT STUDY

IST 199; T-IST 199; IST 1199 Independent Study 1 to 6 credit hours

A course providing an opportunity for a student to develop a study project in any area in which professionally qualified instruction is available. The student develops the project in a conference with the advisor and instructor. Approval request forms are then approved by the registrar and the department chairman. Credit earned generally meets elective requirements of a degree or diploma. Exact amount of credit depends on duration and depth of project but will not exceed six credit hours. (D)

IST 299; T-IST 299 Independent Study 1 to 6 credit hours

A course providing an opportunity for the second-year student to develop a study project in any area in which professionally qualified instruction is available. The student develops the project in a conference with the advisor and instructor. Approval request forms are then approved by the registrar and the department chairman. Credit earned generally meets elective requirements of a degree. Exact amount of credit depends on duration and depth of project but will not exceed six credit hours. (D)

INDUSTRIAL SCIENCE

ISC 102 Industrial Safety 3 0 3

An examination of problems of accidents and fire in industry. Covers management and supervisory responsibility for fire and accident prevention. Additional topics include accident reports, good housekeeping, protective equipment, accident code and fire regulations, safety instruction, use of safety committee, OSHA regulations, insurance bureau, and how to promote safety programs. (F/S)

ISC 103 Production Control 1 3 2

A study of day-to-day plant direction, forecasting, product planning and control, scheduling, dispatching, and expediting. Case histories are discussed with corrective action developed. Prerequisite: MAT 110 or consent of instructor. (SS)

ISC 201 Industrial Organization and Management 3 0 3

A study of organizational structure for industrial management. Covers operational and financial activities, including accounting, budgeting, banking, credit and industrial risk, forecasting and markets, and selection and layout of physical facilities. Also includes selection, training, and supervision of personnel as found in typical industrial organizations. (F)

ISC 202 Quality Control 3 0 3

An examination of principles and techniques of quality control and cost saving. Includes organization and procedure for efficient quality control functions, responsibilities, structure, costs, reports, records, personnel, vendor-customer relationships, sampling inspections, process control, and tests for significance. (W/S)

ISC 203 Motion Study 2 2 3

An examination of types of methods studies and their applications. Includes process charts, analysis sheets, time study, work simplification, and skill and effort rating. (W)

ISC 204 Value Analysis 3 0 3

An introduction to the modern concept in the control of manufacturing production, providing the student an opportunity to study a production system with the specific purpose of identifying unnecessary costs. The objective of the concepts and techniques of value analysis is to make possible a degree of effectiveness in identifying and removing unnecessary costs by the use of sound decisions through a common sense approach. (S)

ISC 205 Maintenance Management 3 0 3

An examination of administration, decision making, setup, and inspection of various programs such as preventive maintenance, repair parts, inventory control, and organization and functions of maintenance. Various aspects of management, engineering resources analysis, and maintenance facilities are covered. (SS)

ISC 207 Foremanship Supervision 3 0 3

A study of the foreman's responsibility for planning, organizing, directing, controlling, and coordinating supervisory activities. Includes basic functions of an organization and supervisory responsibility in carrying out the objectives in accordance with the organization's plan. Includes such topics as establishing lines of authority, functions of departments of units, duties and responsibilities, policies and procedures, and rules and regulations. Prerequisite: BUS 272 or consent of instructor. (D)

ISC 209 Plant Layout 3 2 4

A practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Covers layouts for small and medium-sized plants, layout fundamentals, and selection of production equipment and materials handling equipment. Includes effective management of men, money, and materials in a manufacturing operation. Prerequisite: DFT 102. (D)

ISC 1101 Industrial Safety 3 0 3

A study of the development of industrial safety. Includes accident occurrence and prevention, analysis of accident causes and costs, basic factors of accident control, safety education and training, accident reporting and records, employer and employee responsibility, safety organizations, first aid, mechanical safeguards, personal protective equipment use, materials handling, fire prevention and protection, safety codes, and accident statistics. (F)

ISC 1103 Production Control 1 3 2

A study of production planning, dispatching, progress reporting, and adjusting and replanning systems and charts which help effectively to control production. Material wastes controls, labor controls, indirect labor controls, and overhead controls as they relate to production control are included. (D)

ISC 1110 Time Study and Time Standards 2 2 3

A course with the primary emphasis on use of stop watch. Includes breaking down repetitive operation into elements, timing the elements, Wilk readings, operator performance rating, avoidable delays, allowances for unavoidable delays, setting time standards, timing delays, technique of work sampling, bench marks for "normal work pace," motion study such as is needed to intelligently use predetermined time standards, and practice in building up standard times for specific operations using tables of predetermined times for the elements of the operation. (D)

ISC 1113 Quality Control 3 0 3

A study in setting quality standards for customer acceptance. Includes final inspection to police these standards; prior inspections and specifications to achieve final quality standard at minimum cost; dimensions, tolerances, gages, and other techniques to control dimensions; and qualities other than dimensions which are more intangible. Covers how to set standards and police performance in such areas and receiving inspection, in-process inspection, and sampling. (D)

ISC 1121 Cost Records and Cost Estimates 3 0 3

A study of estimate of cost (materials, labor, overhead, etc.). Materials cost deals with price and grade, cost of delivery and shortage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover, and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. Prerequisite: approval of instructor. (D)

ISC 1123 Work Measurement 3 2 4

The basic study of the principles of work simplification, motion study fundamentals, and time study techniques. Includes the use of predetermined time schedules and the use of the stop watch as they apply to task performance of the operator in the work performance. Also covers the study of flow diagrams and methods of evaluation for production purposes. Prerequisite: approval of instructor. (D)

ISC 1125 Supervisory Responsibility 3 0 3

A course dealing with such topics as fundamentals of supervision, relationships on the job, human relations, performance and job evaluation, the art of motivating people, and effective communications. (D)

LIBRARY—MEDIA*

EDM 101 Introduction to Libraries and Information Centers 3 0 3

The general background and philosophy of information service, including a brief general background and philosophy of information centers and their recent developments. Includes an introduction to classification systems and organization of materials, functions and use of information centers, terminology, and a study of the duties and qualifications of the personnel who staff these centers. (F)

EDM 102 Library Processes I 3 0 3

A study of policies and practices of acquisition of various kinds of materials, information relative to their sources, and the techniques of ordering. Includes borrowing films and film rentals, interlibrary loan materials, microfilm, etc. (W)

EDM 103 Library-Media Resources 3 0 3

A study of general and special reference works, catalogs, and other basic sources of information. Also includes practice in preparation of bibliographies and emphasizing correct form of all kinds of media. (S)

EDM 104 Audiovisual Equipment 3 0 3

A survey course of the nature and use of audiovisual materials. Emphasis is on the care and operation of equipment and the communication characteristics of the various non-print media. (S/D)

EDM 105 Audiovisual Equipment and Production 3 2 5

A survey course of the nature and use of audiovisual materials. Emphasis is on the care and operation of equipment, the communication characteristics of the various non-print media, and the utilization of AV services in a learning resource center. (W/S)

EDM 201 Library Processes II 3 2 4

A study of routine aspects of simple cataloging. Includes a study of the organization of media collections, bibliographic searching for cataloging information, practice in descriptive cataloging, production and filing of catalog cards, and physical preparation of materials for use. Prerequisite: BUS 102. (F)

EDM 202 Library-Media Procedures 3 2 4

A study of the principles of various circulation systems and their attendant procedures. Includes supervised performance of routines that are common to information centers, such as scheduling, recordkeeping, inventory, shelving, filing, processing and mending materials, and handling equipment. (W)

EDM 203 Practicum 2 6 4

A supervised learning experience in which students are placed in an approved location for six hours per week under a professional librarian or media specialist, putting into practice the various skills learned. In addition, two hours a week are spent in group discussion of work oriented problems and personal development. Prerequisites: EDM 101, EDM 102, EDM 103, EDM 201, EDM 104. (F/W/S/SS)

EDM 204 Practicum 2 6 4

A continuation of EDM 203 with six hours per week of practice work in an approved location and two hours a week in group discussions of work oriented problems and personal development. Prerequisite: EDM 203. (F/W/S/SS)

EDM 206 A Survey of Children's Literature 3 0 3

A study of children's reading interests, significant authors and illustrators, indexes to children's literature, and bibliographies and aids in the selection of children's books. Covers reading in books for children through the intermediate level. (D)

*NOTE: Library-media courses are offered in alternate years.

MACHINE SHOP

MEC 101 Machine Processes 1 5 3

An introductory course designed to acquaint the student with basic hand tools, safety procedures, and machine processes of modern industry. Includes a study of measuring instruments, characteristics of metals, and cutting to become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. (F)

MEC 102 Machine Processes 1 5 3

A study of advanced operations on lathe, drilling, boring, and reaming machines. Includes milling machine theory and practice. Provides a thorough study of the types of milling machines, cutters, jig, and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed. Prerequisite: MEC 101. (W)

MEC 103 Machine Processes 1 5 3

A study of modern machine tools of industry, including theory and practice with shaper, slotter, planner, turret lathe, screw machine, and grinding and finishing machines. Also covers gear design and the processes of gear manufacturing. Prerequisite: MEC 102. (F)

MEC 114 Shop Practice 1 6 3

A shop practice course designed to acquaint the student with basic fundamentals of installation, maintenance, and repair of machine tools. Machine maintenance and accuracy are emphasized. Slip and press fits are produced to include bearing assembly. (W)

MEC 122 Production Procedures 4 3 5

A study of product planning and control, scheduling, and routing of operations. Principles and techniques of quality control and cost savings, sampling inspections, and graphs and charts are emphasized. Both statistical and dimensional quality control is reviewed as well as the different processes in producing an item. Prerequisite: MEC 102.

MEC 201 Machine Processes **1 6 3**

A study of newer concepts of work handling and the automatic machining process. Includes chipless production and new techniques in metal forming. Also includes analysis of high-energy forming, ultrasonic machining, electrolytic metal removal, chemical milling, numerical controls, and simplified building block numerical control systems. Prerequisite: MEC 103. (F/D)

MEC 205 Strength of Materials **3 2 4**

A study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns, and machine components. Prerequisites: PHY 106, T-MAT 103. (F)

MEC 207 Tool Making **3 3 4**

A course surveying the actual construction of molds with topics of tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold colling, ejector pins, and multi-cavity molds. Includes selection of materials, use of inserts, two-color molding, and mold building and use. Prerequisite: PLA 107. (W/S)

MEC 210 Physical Metallurgy **3 3 4**

An introductory course in metallurgy covering a basic study of the properties of metals and alloys. Includes analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Also covers solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems. Prerequisite: PHY 101. (F)

MEC 211 Physical Metallurgy **3 3 4**

A study of the properties of metals and alloys, the reaction of metals, diffusion, carburizing, metal bonding and homogenization, recrystallization and grain growth, age, hardening, nitriding, internal oxidation, and heat treatment of steel. Includes laboratory experiments and demonstrations. Prerequisite: MEC 210. (W)

MEC 212 Practical Automation **3 2 4**

A comprehensive study of automation as it is interpreted and practiced by American industry today. Covers the fundamentals of automation and its effects in industrial productivity, labor supply and demand, equipment, and processes. Students solve problems encountered while installing an automated system. (D)

MEC 213 Production Planning **3 3 4**

A study in day-to-day plant direction. Includes forecasting, product planning and control, scheduling, dispatching, routing, and inventory control. Case histories are discussed in the classroom and courses of corrective action are developed. Also includes drafting room layouts for planning and control. Prerequisites: DFT 102, MEC 201. (D)

MEC 214 Tool Engineering **3 3 3**

An introduction to the problems of tool engineering with emphasis on planning the processes of production, designing, and developing the necessary tools and utilizing available manufacturing facilities. Includes practical analysis and comparison of the use and cost of tools, jigs and fixtures, dies, molds, and gauges as they are utilized in modern day manufacturing and production. Prerequisites: DFT 102, MEC 201. (D)

MEC 217 Engineering Material and Processing and Testing 3 3 4

An introductory study of the common materials used in engineering, such as woods, metals, concrete, plastics, etc., and the related physical testing to determine their properties and strengths. Emphasis is placed upon problem solving and engineering application. Prerequisite: PLA 106 or approval of instructor. (D)

MEC 235 Hydraulics and Pneumatics 3 3 4

An examination of the basic theories of hydraulic and pneumatic systems with a look at combinations of systems in various circuits. Includes basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators, and reservoirs. (S)

MEC 237 Control Systems 3 3 4

A study of hydraulic, pneumatic, mechanical, electrical, and electronic control systems and components. Covers basic description, analysis, and explanation of operation. Also includes typical performance characteristics, limitations on performance, accuracy, applications, and their utilization in industrial processes. Prerequisites: PHY 102, ELC 101. (F)

MEC 298 Mechanical Problem Solving 2 3 3

A basic study related to special problems encountered in the mechanical area. Mechanical advantages, motors, controls, and types of movements are investigated. General mechanical operations and maintenance as well as production line problems are surveyed. Prerequisite: MEC 102 or approval of instructor. (W)

MEC 299 General Maintenance and Repair 2 3 3

A course to acquaint the student with the basic fundamentals of installation, maintenance, and repair of machine tools. Emphasis is on machine maintenance and accuracy. Miscellaneous hydraulic, pneumatic, and lubrication devices are installed and maintained. Methods of rigging and machine installation, including location, leveling, and fastening, are covered. The use of precision measuring tools and checking for accuracy, squareness, and correct center distances are stressed for prestart inspection. Prerequisite: MEC 102 or approval of instructor. (S)

MEC 1101 Machine Shop Theory and Practice 4 12 8

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care, and use of basic hand tools and precision measuring instruments; elementary layout procedures; and processes of lathe, drill press, and grinding (off-hand) and milling machines. Includes both theory and practice. (F)

MEC 1101-1 (Part-time) 2 6 4

MEC 1101-2 (Part-time) 2 6 4

MEC 1102 Machine Shop Theory and Practice 4 12 8

A course in advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, and milling machine shaper. The student is introduced to the basic operations on the cylindrical grinder and selects projects encompassing all the operations, tools, and procedures thus far used and those to be stressed throughout the course. Prerequisite: MEC 1101. (W)

MEC 1102-1 (Part-time) 2 6 4

MEC 1102-2 (Part-time) 2 6 4

MEC 1103 Machine Shop Theory and Practice 4 12 8

A course providing advanced work on the engine lathe; turning, boring, and threading machines; grinders; milling machine; and shaper. Includes an introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring of spur, helical, and worn gears and wheels. The trainee uses precision tools and measuring instruments such as vernier height gages, protractors, comparators, etc. Basic exercises are given on the turret lathe and on the tool and cutter grinder. Prerequisite: MEC 1102. (S)

MEC 1103-1 (Part-time) 2 6 4

MEC 1103-2 (Part-time) 2 6 4

MEC 1104 Machine Shop Theory and Practice 3 12 7

A course providing for the development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly, and inspection. Includes additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Covers special procedures and operations, processes and equipment, observing safety procedures, and establishing good work habits and attitudes acceptable to the industry. Prerequisite: MEC 1103. (S)

MEC 1104-1 (Part-time) 2 6 4

MEC 1104-2 (Part-time) 1 6 3

MEC 1112 Machine Shop Processes 0 6 2

A study to acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Provides experiences in the basic fundamentals of drill press and lathe operation, hand grinding of drill bits and lathe tools, and set-up work applied to the trade. (D)

MEC 1113 Shop Processes 2 3 3

A study of practices used in metalworking shops. Includes introduction to how materials can be utilized and to the processes of shaping, forming, and fabricating of metals. Includes a demonstration of the metalworking lathes, grinders, drills, milling machines, shapers, planers, saws, broachers, gear cutting machines, finishing machines, and a study of the capabilities of these machines. (D)

MEC 1114 Shop Processes 2 3 3

A comparison of the unit production and mass production systems. Casting, forging and allied processes, and welding and sheet metal working processes are demonstrated and discussed. Mass-production methods are studied in relationship to precision dimensional control. Prerequisite: MEC 1113. (D)

MEC 1115 Treatment of Ferrous Metals **2 3 3**

An investigation of the properties of ferrous metals and tests to determine their uses. Includes some chemical metallurgy to provide a background for the understanding of the physical changes and their causes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron are topics for study. (S)

MEC 1116 Treatment of Nonferrous Metals **2 3 3**

An investigation of the properties of nonferrous metals and tests to determine their uses. Primary interest is on aluminum, magnesium, zinc, lead, and chromium. Nonferrous alloys such as brass, bronze, bobbit, and cemented carbides are studied. A discussion of stainless steel is included. Prerequisite: MEC 1115. (SS)

MEC 1117 Basic Metals Identification **1 2 2**

An elementary and practical approach to metals and their identification, classification, and basic structure with major emphasis on ferrous metals. Testing and identification tests utilize several methods including hardness, impact, tensile, color, spark, machining, and magnetic. (F)

MEC 1118 Advanced Machine Processes **3 12 7**

An advanced study of the operations of the machine shop utilizing all machines. Includes instruction on gauging practices, applications to the finished product, and various gauging procedures. Students are assigned individual projects by which they gain proficiency on the various types of machines. Prerequisite: MEC 1104. (D)

MEC 1118-1 (Part-time) **2 6 4**

MEC 1118-2 (Part-time) **1 6 3**

MEC 1119 Advanced Machine Processes **3 9 6**

A study of the more complex machines within the shop. Offers a step-by-step study of tooling for the automatic screw machines, turret lathe, and numerical tape-controlled machine. Automatic chucking and clamping systems are emphasized. Prerequisite: MEC 1118. (D)

MEC 1120 Machine Repair **1 3 2**

A course offering the student a look into the machines themselves. Possible reasons for machine break-down are explored. Emphasis is placed on the proper maintenance of machinery as well as preventive maintenance. Repair and maintenance manuals for various machines are reviewed. Prerequisite: MEC 1104. (D)

MEC 1121 Machine Repair **1 3 2**

A continuing study of the inner parts of machinery. Special interest is placed on commercial standards, designs, and development of necessary tools and accessories. A comparison of purchase price on manufactured items of replacement parts is studied. Prerequisite: MEC 1120. (D)

MEC 1122 Production Procedures **4 3 5**

A study of product planning and control, scheduling, and routing of operations. Principles and techniques of quality control and cost saving, sampling inspections, and graphs and charts are emphasized. Both statistical and dimensional quality control are reviewed as well as the different processes to produce an item. Prerequisite: MEC 1104. (SS)

MEC 1123 Shop Processes 2 3 3

A continuation in the study of methods of manufacturing parts. Metal machining is the main emphasis in this course. Further operations on metal cutting saws, lathes, milling machines, grinders, and introduction to gear cutting equipment are reviewed. How dimensional control and precision measurement coincide with drafting procedures is also covered. Prerequisite: MEC 1114. (SS)

MEC 1124 Shop Processes 2 3 3

A discussion of some of the newer concepts of work handling and automatic machining processes. Instructions are offered on automatic screw machines, turret lathes, and numerical controlled systems as well as chipless machining. Major emphasis is on the integration of drafting processes to the machined part and how each affects the other. Prerequisite: MEC 1123. (D)

MEC 1139 Basic Hydraulics and Pneumatics 3 3 4

A study of the basic theories and uses of hydraulic and pneumatic systems and the combination of systems. Includes basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, filtration, accumulators, and reservoirs. Students install and maintain the components. Prerequisite: PHY 1101. (D)

MEC 1147 Systems of Measurement and Measuring Tools 2 0 2

A basic study of measurement and the various systems. Covers how to use and read the various rules, scales, calipers, micrometers, and other precision measuring tools used in mechanical work. Also includes the reading of the basic electrical meters used in testing. (D)

MEC 1201 Machine Processes 3 12 7

An introduction to the tools, instruments, machines, and methods used in the tool and die shop. Basic tool and die making procedures are stressed, especially as they pertain to simple blanking or bending dies and to tooling used to locate and hold parts in production. Students work on selected projects to develop a proficiency level. Prerequisite: machine shop graduate or approval of instructor. (D)

MEC 1201-1 (Part-time) 2 6 4

MEC 1201-2 (Part-time) 1 6 3

MEC 1202 Machine Processes 3 12 7

An advanced study of the operation of individual parts as they pertain to tools, dies, or fixtures. Includes special training instructions on gauging practices, assembly, and its application of the finished product. Students are assigned individual projects to help develop their proficiency in the use of various types of machine tools. Prerequisite: MEC 1201. (D)

MEC 1202-1 (Part-time) 2 6 4

MEC 1202-2 (Part-time) 1 6 3

MEC 1203 Machine Processes 3 12 7

A continuation of MEC 1202 providing a detailed study of die sets for the punch press and molding machinery. Emphasis is given to use of strippers, knock-outs, material guides, and other supportive parts. Project work includes finish grinding, honing, and lapping as necessary to the assembly of the finished tool. Students are allowed to use their own reasoning as it pertains to the finished product. Prerequisite: MEC 1202 or approval of instructor. (D)

MEC 1203-1 (Part-time) 2 6 4

MEC 1203-2 (Part-time) 1 6 3

MEC 1204 Machine Processes 3 12 7

A course including the use of die stops, ejector pins, and production feeding processes. Covers stock strip layout, selection of purchased parts for dies and molds, and survey of setup and startup procedures for tools, dies, and molds. Also includes a review of the final assembly of subparts. Prerequisite: MEC 1203 or approval of instructor. (D)

MEC 1204-1 (Part-time) 2 6 4

MEC 1204-2 (Part-time) 1 6 3

MEC 1205 Strength of Material 2 3 3

A study of the principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. Includes an analysis of stresses as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns, and machine components. (D)

MEC 1207 Toolmaking 3 3 4

A course surveying the actual construction of molds and covering tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold coiling, ejector pins, and multicavity molds. Includes selection of materials, use of inserts, two-color molding, and mold building and use. Prerequisite: MEC 1201 or approval of instructor. (D)

MEC 1210 Metallurgy 2 3 3

An introductory course in metallurgy covering the study of the properties of metals and alloys. Covers an analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Also includes solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems. (D)

MEC 1214 Tool Design and Planning 2 3 3

A course in planning a production area and involving isolating the areas needing tools and fixtures for production and estimating the cost for tooling the assignment. Typical tool design is employed with blueprints reflecting standard procedures. Design from the drawing board is stressed. Prerequisite: machine drawing or approval of instructor. (D)

MEC 1235 Hydraulic and Pneumatics 2 3 3

A study of the basic theories of hydraulic and pneumatic systems. Covers combinations of systems in various circuits. Also includes basic designs and functions of circuits and motors, controls, electro-hydraulic servomechanism, plumbing, filtration, accumulators, and reservoirs. (D)

MEC 1298 Special Problems in Mechanics Maximum Credit 6 hours

A course designed to broaden the students' experiences in the areas of mechanics. Includes problems involving experimentation, investigation, and writing of research report involving such topics as automobiles, mechanical operations, and general maintenance and repair required for machinery. Prerequisite: all curriculum courses. (D)

MEC 1299 Special Problems **3 6 5**

A study of special problems within the metals industry such as tumbling, surface finish, and other related conditions. Each student will be required to follow a complete system from design to production stage to review conditions as viewed by production. Flashing and overheating of molded material are also discussed. (D)

MEC 1299-1 (Part-time) **2 3 3**

MEC 1299-2 (Part-time) **1 3 2**

MATHEMATICS

MAT 090 Arithmetic **3 2 4**

A course covering the basic operations of addition, subtraction, multiplication, and division as performed on whole numbers. Includes greatest common factor, least common multiple, common fractions, and decimal fractions. Also included are ratio and proportions, percentages, and formula evaluation. Completion of this course does not earn credit toward the completion of a diploma or a degree. (F/D)

MAT 091 Algebra **3 2 4**

An elementary course in algebra including topics such as operations on signed numbers, exponents, operations on polynomials, special products and factoring, algebraic fractions, solving and graphing linear equations, radicals, quadratic equations, and properties of the imaginary unit. Completion of this course does not earn credit toward the completion of a diploma or a degree. Prerequisite: MAT 090 or satisfactory score on the placement test. (F/D)

T-MAT 100 Mathematics **3 0 3**

A study in practical number theory. Includes analysis of basic operations of addition, subtraction, multiplication, and division. Covers fractions, decimals, powers and roots, percentages, and ratio and proportion. Also includes plane and solid geometric figures used in industry, measurement of surfaces and volumes, an introduction to algebra used in trades, and practice in depth. (F)

MAT 101 College Math **3 0 3**

A study of college mathematics including the study of polynomials, algebraic fractions, exponents, radicals, and an introduction to the metric system. Prerequisite: MAT 091 or a satisfactory score on the placement test. (F/W/S)

T-MAT 101 Technical Math **5 0 5**

The first course in a three-course technical math sequence. Topics of study include the arithmetic of whole numbers, decimals, common fractions, percents, signed numbers, and algebraic expressions. (F)

MAT 102 College Math **3 0 3**

A further study in college mathematics, this course includes algebraic equations, mathematical method, mathematical logic, properties of number systems, and an introduction to computers. Prerequisite: MAT 101. (W)

T-MAT 102 Technical Math **5 0 5**

The second course in a three-course technical math sequence. Topics of study include linear equations, special products, factoring, algebraic fractions, and elementary plane geometry. Prerequisite: T-MAT 101 or equivalent. (W)

MAT 103 College Math **3 0 3**

The third and final course of a sequence in college mathematics. Topics include vectors and matrices, inequalities, functions and relations, algebraic functions, and exponential and logarithmic functions. Prerequisite: MAT 102. (S)

T-MAT 103 Technical Math **5 0 5**

The third course in a three-course technical math sequence. Topics include exponents, radicals, quadratic equations, and trigonometry. Prerequisite: T-MAT 102 or equivalent. (S)

MAT 110 Business Math **5 0 5**

A course stressing the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business. Prerequisite: MAT 090 or satisfactory score on placement test. (F/W/S)

MAT 111 Algebra **5 0 5**

An axiomatic presentation of the real number system as an ordered field in which definitions, axioms, and theorems are used to justify the traditional algebraic processes involving such topics as algebraic fractions, factoring, absolute value, equations, inequalities, radicals, and exponents. Additional topics are various types of functions, including the exponential functions, logarithmic functions, and the circular functions. Prerequisite: MAT 101 or satisfactory score on the placement test. (F)

MAT 112 Trigonometry **5 0 5**

A continuation of MAT 111 and including the study of the trigonometric functions, identities, radian measurement, trigonometric equations, complex number, theory of equations, systems of equations, binomial theorem, probability, and sequence. Prerequisite: MAT 111. (W)

MAT 113 Analytical Geometry and Calculus I **5 0 5**

A course including the study of the coordinate system, loci, linear and quadratic graphs, conics, limits, continuity, and an introduction to differentiation. Prerequisite: MAT 112 or equivalent. (S)

MAT 201 Analytical Geometry and Calculus II **5 0 5**

A continuation of differentiation and applications of the derivative. The topics of study are related rates, maximum and minimum values of a function, Rolle's theorem, the mean-value theorem, and inflection. The indefinite integral and its properties are also introduced. Prerequisite: MAT 113 or equivalent. (SS)

T-MAT 201 Mathematics (Decimal-Metric Conversion) **3 0 3**

A course involving practice problems in conversion of fractions to decimal and decimal to fractions, metric conversions to English systems, and proper use of conversion tables. Basic forms of algebraic solutions for the unknown are practiced. Prerequisite: T-MAT 100. (W)

MAT 202 Analytical Geometry and Calculus III 5 0 5

A continuation of the study of the indefinite and definite integrals and their applications. Areas, volumes, moments, work, and fluid pressure are included. Also included are transcendental functions, integration by parts, integration by substitutions, and integration by partial fractions. Prerequisite: MAT 201 or equivalent.

MAT 203 Analytical Geometry and Calculus IV 5 0 5

A study including multiple integration, approximate integration, improper integrals, indeterminate forms, infinite series, and expansion of functions and vectors. Prerequisite: MAT 202 or equivalent. (W)

MAT 214 Statistics 5 0 5

A study of the theory of statistics and its application in modern business. Includes kinds of regularity that exist among random fluctuations and experience in associating and using mathematical models to interpret physical phenomena and predicting the outcomes of experiments related to practical business problems. Prerequisite: MAT 101 or MAT 110, T-MAT 101. (F)

MAT 220 Differential Equations 5 0 5

A study of the methods of solution of ordinary differential equations. Prerequisite: MAT 203. (S)

MAT 1101 Fundamentals of Math 3 0 3

A study of practical number theory. Includes analysis of basic operations of addition, subtraction, multiplication, and division. Covers fractions, decimals, powers and roots, percentages, and ratio and proportion. Also includes plane and solid geometric figures used in industry, measurement of surfaces and volumes, an introduction to algebra used in trades, and practice in depth. (F)

MAT 1101W Practical Math for Welders 5 0 5

An in-depth review of the basic operations of addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. The study of metric units as well as linear, angular, and surface measurements are included. Emphasis is placed on measuring and using measurements to solve welding problems. (W)

MAT 1102 Algebra 5 0 5

A study of basic concepts and operations of algebra. Includes historical background of base-10 number system; algebraic operations; addition, subtraction, multiplication, and division; fractions, letter representation, grouping, factoring, ratio and proportions, variation, graphical and algebraic solution of first degree equations; and solution of simultaneous equations by addition, subtraction, graphing, exponents, logarithms, tables, and interpolation. (W)

MAT 1103 Geometry 3 0 3

A study of fundamental properties and definitions. Covers plane and solid geometric figures, selected general theorems, geometric construction of lines, angles, and plane figures. Includes dihedral angles, areas of plane figures, and volumes of solids. Geometric principles are applied to shop operations. (W)

MAT 1104 Trigonometry **3 0 3**

A study of trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions and trigonometric equations. All topics are applied to practical problems. (S)

MAT 1115 Electrical Math **5 0 5**

A study of fundamental concepts of algebra; basic operations of addition, subtraction, multiplication, and division; solution of first order equations, use of letters and signs, grouping, factoring, exponents, and ratios and proportions; solution of equations, algebraically and graphically; a study of logarithms and use of tables and introduction to trigonometric functions and their applications to right angles; and a study of vectors for use in alternating current. (F)

MAT 1120 Applied Mathematics **2 2 3**

A course in practical problems especially selected to insure mastery of mathematical principles applied to the automobile trades. (F)

MAT 1123 Math: Machinist **3 0 3**

An introduction to gear ratio, lead screw, and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems. Concludes with an introduction to compound angle problems. Prerequisite: MAT 1104. (SS)

MAT 1201 Trigonometry **5 0 5**

A course stressing trigonometric ratios, solving problems with right angles using tables or calculators, and interpretation of tables. Covers solving for sides or angles using the laws of sine and cosine. Includes a survey of the use of inverse functions of trigonometric equations. All topics are applied to practical problems found within a machine shop. Prerequisite: MAT 1123 or approval of instructor. (D)

MAT 1202 Uses of the Handbook **3 0 3**

A course featuring practical problems especially selected as they pertain to the manufacture of tool parts. Stresses how to read and interpret the machinery handbook to insure mastery of mathematical principles as they apply to the tool and die trade. Prerequisite: MAT 1101 or approval of instructor. (D)

MUSIC

MUS 101 Music Appreciation **3 0 3**

An historical study of music, with emphasis on simple form and analysis, instrumentation, aesthetics, masterpieces, and other significant works. (F/W/S)

MUS 102 Elementary Theory of Music I **3 0 3**

A study of basic fundamentals of music, with emphasis on ear-training, sight-singing, and keyboard harmony. The study of harmony includes note reading and notation, major scales with related and parallel minors, major and minor triads and dominant sevenths, key signatures, intervals, enharmonics, compositional devices, and rhythmic textures. (D)

MUS 103 Elementary Theory of Music II **3 0 3**

A continuation of the study of music fundamentals, with emphasis on figured bass, diminished and augmented chords, chord inversions, four-part harmonic progressions, cadences, secondary dominants, transposition, modulation, improvisation, pentatonic and whole tone scales, medieval modes, phrase structure, nonharmonic tones, pivot chords, sequences, chromatic chords, Neopolitan sixth, and chords of the ninth, eleventh, and thirteenth. Prerequisite: MUS 102. (D)

MUS 104 Elementary Theory of Music III **3 0 3**

An advanced study of music theory, with emphasis on sight-singing; rhythmic, melodic, and harmonic dictation; and keyboard harmony. This course is a more in-depth study of elements introduced in MUS 102 and MUS 103. Prerequisites: MUS 102, MUS 103. (D)

MUS 105 Chorus **0 2 1**

A group singing class, with emphasis on classical, semi-classical, and popular contemporary songs. (F/W/S)

MUS 106 Voice **0 2 1**

A study of the principles of voice production and extensive singing, with emphasis on both group singing and solo song literature. For the beginning voice student. (No knowledge of music required). (F/W/S)

MUS 107 Piano **0 2 1**

A course for students entering at any level of proficiency, with emphasis on improving playing technique. No previous experience necessary. May be used as a refresher course for those out of touch with the keyboard or as a course for those who wish to develop new skills at any level. Evaluations based on progress from one level of proficiency to another, depending on the level at which the student begins. Up to 6 credit hours may be accumulated. (F/W/S/SS)

MUS 110 Recreational Music **3 0 3**

A study of the value and use of music in a recreational program, with emphasis on instruments, aids, and materials. Practice sessions and demonstrations of teaching techniques are offered. (W)

MUS 112 Intermediate Band **0 2 1**

A small ensemble for students who have ability playing any band instrument, with emphasis on instrument mastery and performance. Evaluations based on improvement. Up to 6 credit hours may be accumulated. Prerequisite: ability to play a band instrument at the intermediate level. (W)

MUS 113 Advanced Band **0 2 1**

A large ensemble for students who have an advanced ability and experience playing any band instrument, with emphasis on extending instrument mastery, playing a variety of musical styles, and learning a variety of musical interpretations. Evaluations based on improvement. Up to 6 credit hours may be accumulated. Prerequisite: ability to play any band instrument at the high school level. (F/W/S/SS)

MUS 120 Guitar **0 2 1**

A study of guitar, with emphasis on developing finger dexterity, forming chords, strumming, rhythmic patterns, and tuning the guitar. Lessons are presented in logical sequential steps. The course stresses good musicianship and teaches proper playing techniques. The overall course content is concerned with theory, harmony, reading from musical notation, and rhythm. (D)

MUS 201 American Music 3 0 3

A study of Western music as it existed and exists on the American continent from 1640 to the present, including music from all genres, Afro-American, and Indian music. (D)

NUCLEAR MEDICINE TECHNOLOGY

NMT 101 Nuclear Medicine Technology I 1 0 1

An orientation to the field of nuclear medicine technology. Elementary patient care procedures and professional ethics are emphasized. (F)

NMT 102 Nuclear Medicine Technology II 1 0 1

An introduction to the radiopharmaceuticals and instrumentation used in nuclear medicine. Radiation safety procedures are discussed. Prerequisite: NMT 101. (W)

NMT 103 Nuclear Medicine Technology III 1 0 1

A study of the *in-vivo* nuclear medicine procedures. Patient preparation for these procedures is emphasized. Prerequisite: NMT 102. (S)

NMT 104 Nuclear Medicine Technology IV 2 0 2

A continuation of the nuclear medicine technology which emphasizes special *in-vitro* procedures. Prerequisite: NMT 103. (SS)

NMT 111 Principles of Nuclear Medicine I 2 0 2

An introductory course in clinical nuclear medicine. The basic principles of the major *in-vivo* studies and major clinical nuclear medicine procedures are introduced. Prerequisite: NMT 104. (F)

NMT 116 Nuclear Physics 2 0 2

An introduction to the basic concepts of atomic and nuclear radiation physics. Nuclear decay schemes and concepts of radioactive decay are discussed, followed by a thorough discussion on the interactions of radiation with matter. Prerequisite: NMT 104. (F)

NMT 117 Health Physics 1 0 1

An introduction to radiation safety techniques for reducing exposure to physicians, technologists, and patients. Atomic Energy Commission and state regulations and monitoring methods for nuclear medicine departments are emphasized. Prerequisite: NMT 111. (W)

NMT 129 Practicum I 0 12 4

A program of directed clinical learning experiences in special areas of the nuclear medicine laboratory. Radionuclide generators, radiation safety, and management and administration of nuclear medicine department are presented in lecture series. Prerequisite: NMT 103. (SS)

NMT 221 Principles of Nuclear Medicine II 2 0 2

A study of the principles and applications of radionuclide studies of the gastrointestinal and cardiopulmonary systems. Prerequisite: NMT 111. (W)

NMT 223 Radiopharmaceuticals I 2 0 2

An introduction to radiopharmacy functions, production of radionuclides, quality control and radiopharmaceuticals, and radiopharmacy mathematics. Prerequisite: NMT 111. (W)

NMT 230 Nuclear Medicine Instrumentation I 3 2 4

A study of practical electronic design of radiation detection instruments and circuit construction. Use of such instruments as the Geiger-Muller counter, ionization chambers, proportional counters, and radiation monitoring devices are discussed. Statistics related to nuclear counting are introduced. Prerequisite: NMT 111. (W)

NMT 233 Radiopharmaceuticals II 2 0 2

A study of radiopharmaceuticals used in nuclear medicine departments on a routine basis. Radiopharmaceuticals of historical and research interest are emphasized. Prerequisite: NMT 223. (S)

NMT 240 Nuclear Medicine Instrumentation II 3 2 4

A study in detail of the use of well counter, scanners, cameras, and single channel and multichannel analyzers as related to clinical nuclear medicine. Emphasis is placed on NaI (TI) detectors, GeLi detectors, amplifiers, spectrometers, ratemeter, and scales. Prerequisite: NMT 230. (S)

NMT 241 Principles of Nuclear Medicine III 2 0 2

A detailed study of principles and applications of radionuclide studies of the endocrine and central nervous systems. Prerequisite: NMT 221. (S)

NMT 251 Principles of Nuclear Medicine IV 2 0 2

A detailed theoretical consideration of standard *in-vivo* laboratory tests and radionuclide studies of the skeletal and urinary systems. Prerequisite: NMT 240. (SS)

NMT 255 Introduction to Radioimmunoassay 1 2 2

A review of the basic units of measurement with emphasis on the metric system. The organization of living matter from the chemical view is discussed. Emphasis is placed on protein structure and competitive protein binding analysis. Prerequisite: NMT 104. (F)

NMT 268 Open Lab Practicum I 0 6 2

A clinical experience as conducted under evening and weekend emergency conditions. Prerequisite: NMT 104. (F)

NMT 269 Practicum II 0 24 8

A course featuring practical experience in a clinical setting with emphasis on scanning. Radiation protection practices and routine quality control of the instruments is observed and used. Prerequisite: NMT 129. (F)

NMT 273 Open Lab Practicum II 0 6 2

A clinical experience conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 268. (W)

NMT 274 Practicum III 0 24 8

A practical experience in a clinical setting with emphasis on the more advanced applications of nuclear medicine procedures. Preparation and use of radiopharmaceuticals and preparation of the patient for such studies as bone and 67GA are included. Prerequisite: NMT 269. (W)

NMT 278 Open Lab Practicum III 0 6 2

A clinical experience conducted under evening and weekend emergency situations with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 268. (S)

NMT 279 Practicum IV 0 24 8

A practical experience in a clinical setting with emphasis on *in-vitro* procedures and therapeutic use of radionuclides. The course also relates all theory presented during the first three quarters of practicum. Prerequisite: NMT 274. (S)

NMT 283 Open Lab Practicum IV 0 6 2

A clinical experience in NMT 284 as conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 278. (SS)

NMT 284 Practicum V 0 24 8

A more detailed study in the design and use of specific instruments utilized in clinical nuclear medicine. Emphasis is placed on the performance of more advanced studies in *in-vitro* and *in-vivo* procedures employing radioisotopes and practical therapeutic use of radionuclides. Prerequisite: NMT 279. (SS)

NMT 289 Radiobiology 2 0 2

A course in which the fundamentals of radiobiology, a system's sensitivity to radiation (normal and neoplastic), radiation pathology, and the biological effects of radiation are stressed. Emphasis is placed upon the effects of radiation and the effects of radiation absorption on tissue and tissue recovery rate. Prerequisite: NMT 221. (S)

NMT 290 Nuclear Medicine Technology Seminar 2 0 2

A review of specific topics of nuclear medicine technology of special interest to students. Papers on such topics are presented by guest speakers. Prerequisite: NMT 241. (SS)

NURSING—ASSOCIATE DEGREE

NUR 101 Fundamentals of Nursing 6 6 9

A course designed to provide a foundation for all subsequent courses in nursing. Students are provided with opportunities to learn the principles and techniques which are basic to the effective and safe nursing care in meeting the needs common to all patients. Emphasis is placed on the patient's environment, hygienic needs, communications skills, observational skills, planning nursing care, recording, medical and surgical asepsis, and supplementary nursing functions. A variety of approaches are utilized for the development of the basic techniques and skills necessary to meet the basic needs of man. (F)

NUR 102 Nutrition 3 0 3

A practical study of nutrients, how they are used by the body, and sources and types of food necessary for the balanced diet in development, with ethnic variations. Physiological processes of digestion, absorption, and metabolism are discussed. An introduction to the most commonly used hospital diets is included. (F)

NUR 103 Pharmacology **3 0 3**

A presentation of facts concerning sources, effects, legalities, and usage of therapeutic agents. Conversion between systems, prescriptions of medications, drug classifications, and nursing implications are covered. Emphasis is placed on the nurse's responsibility in relation to drug administration. Prepares the student for the process of administering and computing dosages of therapeutic agents. Practice opportunities are available in both classroom and clinical sessions. Prerequisite: basic math. (W)

NUR 104 Maternal-Infant Health I **4 0 4**

A course designed to provide the student with opportunities to acquire knowledge and understanding needed to render safe and effective nursing care to the maternity patient, the newborn infant, and the infant's family. Prerequisite: NUR 101. Corequisite: NUR 105. (W)

NUR 105 Maternal-Infant Health I Lab **0 6 2**

A series of objective-centered sessions using selected patients in the obstetrical units of area hospitals to develop skills needed to apply the knowledge learned in NUR 104. Experiences in selected clinics are planned to stress the scope of maternal-infant health care. Prerequisite: NUR 101. Corequisite: NUR 104. (W)

NUR 106 Child Health Nursing I **4 0 4**

A course providing the student with opportunities to acquire the knowledge and understanding needed to render safe and effective nursing care to the child from infancy through adolescence and to his/her family. Prerequisite: NUR 101. Corequisite: NUR 107. (W)

NUR 107 Child Health Nursing I Lab **0 6 2**

A series of objective-centered sessions using selected patients in area hospitals to develop the skills needed to apply knowledge learned in NUR 106. Experiences in selected clinics are planned to stress the scope of child health care. Prerequisite: NUR 101. Corequisite: NUR 106. (W)

NUR 108 Medical-Surgical I **8 0 8**

A course providing beginning knowledge of the nursing care of patients with common problems caused by illness. Symptoms of illness, classification of diseases, preoperative and postoperative care, long-term illness, and rehabilitation are included. Nursing needs of the patient with disorders and/or diseases of the cardiovascular and respiratory systems are stressed. Principles related to the care of patients with long-term illness, in geriatric situations, during rehabilitation nursing, as well as the patient with cancer and the dying patient are introduced. Prerequisite: NUR 101 through NUR 107. Corequisite: NUR 109. (S)

NUR 109 Medical-Surgical I Lab **0 15 5**

A series of objective-centered learning experiences using selected patients in the medical-surgical units in area hospitals to develop the skills needed to demonstrate the knowledge learned in NUR 108. The emergency room, operating room, and recovery room are utilized. Agencies and intermediate and extended care facilities may be utilized for observation experiences. Prerequisite: NUR 101 through NUR 107. Corequisite: NUR 108. (S)

NUR 110 Medical-Surgical II 6 0 6

The study of diseases/disorders of body systems. Covers etiology, diagnosis, treatment, and nursing care during these conditions of illness. Communicable diseases of the adult as well as disaster and emergency nursing are included. Patient teaching and rehabilitation are stressed as intrinsic aspects of the nursing process. Prerequisite: NUR 101 through NUR 109. Corequisite: NUR 111. (SS)

NUR 111 Medical-Surgical II Lab 0 18 6

A series of objective-centered learning experiences using selected patients in the medical-surgical units of area hospitals to develop the skills needed to demonstrate knowledge learned in NUR 110. Functioning as a member of the nursing team and the utilization of all health team members to promote and achieve total patient care are important aspects of this experience. Prerequisite: NUR 101 through NUR 109. Corequisite: NUR 110. (SS)

NUR 112 Nursing Seminar I 3 0 3

A study of the legal and ethical responsibilities, professional organizations, and job opportunities available to the licensed practical nurse. The North Carolina Nurse Practice Act is emphasized. The importance of an availability of continued education is stressed. Applications for writing the State Board of Nursing Licensing Examination for Practical Nurses are completed and submitted at the end of this course. The seminar method of instruction is utilized and opportunity made for discussion of special interests of the students. Prerequisite: NUR 101 through NUR 109. (SS)

NUR 200 Psychiatric Nursing 6 0 6

A study of the nurse's role in functioning therapeutically and in individual interpersonal relationships with the mentally ill patient who requires hospitalization at some point during the patient's illness. Emphasis is placed on cognizance and utilization of self as a therapeutic agent, identification of personality, and behavior deviations. Synthesis and integration of information acquired in all other courses is expected throughout the course. Prerequisite: all NUR 100 courses, BIO 135. Corequisite: NUR 201. (SS/W)

NUR 201 Psychiatric Nursing Lab 0 9 3

A series of objective-centered learning experiences using selected patients in psychiatric units of area hospitals to develop the skills needed to demonstrate knowledge learned in NUR 200. Synthesis and integration of skills acquired in all other courses is expected. Prerequisite: all NUR 100 courses, BIO 135. Corequisite: NUR 200. (SS/W)

NUR 202 Maternal-Infant Health II 4 0 4

A study of nursing intervention during the maternal cycle including intensive care of premature infants. Emphasis is placed on family-centered care and health teaching, recognition of deviations from the normal, and planning nursing care for individuals or groups. Utilization of cognitive, judgmental, and manipulation skills, drawing from knowledge acquired through related courses is stressed in assessing, implementing, and evaluating via the nursing process. Prerequisites: NUR 200, NUR 201. Corequisite: NUR 203. (F/S)

NUR 203 Maternal-Infant Health II Lab 0 6 2

A series of objective-centered learning experiences using selected patients in the maternity units of area hospitals and other health agencies to develop the skills needed to demonstrate the knowledge learned in NUR 202. Prerequisites: NUR 200, NUR 201. Corequisite: NUR 202. (F/S)

NUR 204 Child Health Nursing II **4 0 4**

A study of nursing intervention during childhood from infancy through adolescence. Emphasis is placed on family-centered care and health teaching, recognition of deviations from the normal, and planning nursing care for individuals or groups. Utilization of cognitive, judgmental, and manipulation skills, drawing from knowledge acquired through related courses is stressed in assessing, implementing, and evaluating via the nursing process. Prerequisites: NUR 200, NUR 201. Corequisite: NUR 205. (F/S)

NUR 205 Child Health Nursing II Lab **0 6 2**

A comprehensive study of biological, social, and emotional components of frequently occurring illness. Orientation is based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems is stressed. Use of pediatrics units of area hospitals and other health agencies is planned to develop the skills needed to demonstrate the knowledge learned in NUR 204. Prerequisites: NUR 200, NUR 201. Corequisite: NUR 204. (F/S)

NUR 206 Medical-Surgical III **6 0 6**

A comprehensive study of biological, social, and emotional components of frequently occurring illness. Orientation is based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems is stressed. Prerequisite: NUR 200 through NUR 205. Corequisite: NUR 207. (W/SS)

NUR 207 Medical-Surgical III Lab **0 15 5**

A comprehensive study of biological, social, and emotional components of frequently occurring illness. Orientation will be based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems is stressed. Use of medical-surgical units of area hospitals and other health agencies is planned to develop the skills needed to demonstrate the knowledge learned in NUR 206. Opportunity is provided for using previously acquired knowledge in planning and implementing nursing care for groups or individuals. Prerequisite: NUR 200 through NUR 205. Corequisite: NUR 206. (W/SS)

NUR 208 Medical-Surgical IV **6 0 6**

A comprehensive study of biological, social, and emotional components of frequently occurring illnesses with emphasis upon the rehabilitative and adaptive processes. Prerequisite: NUR 200 through NUR 207. Corequisite: NUR 209. (S/F)

NUR 209 Medical-Surgical IV Lab **0 18 6**

A series of selected learning experiences to assist the student in the development of the ability to formulate and utilize previously and concurrently acquired skills so that comprehensive planning and competent application of cognitive, affective, and manipulative skills are employed in the care of the patient(s) in all age groups and in a variety of situations. The student is given the opportunity to plan, direct, and evaluate total patient care for groups and/or individuals using the instructor as the principle resource. Prerequisite: NUR 200 through NUR 207. Corequisite: NUR 208. (S/F)

NUR 210 Seminar II **3 0 3**

A study of the role and responsibilities of the registered nurse. The leadership role and various methods of managing patient care are emphasized. Current trends, transitional concerns, employment opportunities, and continuing education are stressed. The seminar approach is utilized to meet the individual needs of the students. Prerequisites: NUR 200 through NUR 207. (S/F)

OCCUPATIONAL THERAPY ASSISTANT

OTA 101 Orientation to OTA Program and Introduction to Occupational Therapy **0 6 2**

A two-week pre-quarter orientation for students entering program. Includes field visits to clinical sites providing occupational therapy services for the purpose of identifying roles of occupational therapy personnel and introduction to medical terminology and health care services. (SS/F)

OTA 102 Occupational Therapy Theory I **3 1 3**

An introduction to the art and science of occupational therapy including the history of the profession, practice arenas, and discussion of the role of the Association. Emphasis will be on identification of roles and responsibilities of the COTA, standards of practice, socio-cultural influences affecting occupational therapy, and accountability and ethics. Level I field work experiences to be incorporated into lab sessions. Discussion and field experiences will highlight relationship of occupational therapy to other health services. (F)

OTA 103 Major Crafts and Their Application **1 4 2**

A course devoted to the development of skills in major crafts including woodworking, weaving, and leatherwork. The use of and adaptation of these activities in therapeutic programs will be integrated with the learning of skills. Care and maintenance of equipment and materials will be emphasized. Prerequisites: OTA 101 and OTA 102. (W)

OTA 104 Occupational Therapy Theory II **3 1 3**

A study and analyzing of daily life tasks and activities including self care, work and play/leisure skills. Concepts of activity analysis, adaptation, and role mastery will be reviewed in conjunction with normal growth and development. Individual and group instructional techniques will be stressed. Prerequisites: OTA 101, OTA 102 and PSY 210. (W)

OTA 105 Occupational Therapy Theory III **3 0 3**

A course emphasizing the occupational therapy treatment process. Basic principles of screening, program planning, and implementation of programs for clients with biopsychosocial disorders will be stressed. Programs for prevention and remediation of health disorders will be developed and analyzed from actual field experience case studies. Professional skills of information gathering, goal setting, and selecting and planning use of occupational therapy techniques will be mastered by the student. Prerequisites: OTA 104 and BIO 109. (S)

OTA 201 The Mature Years—Gerontology 3 3 4

A course focusing on the latter half of the life span, including concepts of the aging process, retirement, and physical, emotional, and social adjustment. Emphasis will be on occupational therapy programming for geriatric citizens living in various environments. Field experiences will include visiting and participating in geriatric programs. Prerequisite: OTA 105. (F)

OTA 202 Treatment Methods for Neurological Problems 3 3 4

An introduction to occupational therapy treatment for neurological problems. Course will orient student to perceptual motor, sensory integrative, and cognitive techniques used by the occupational therapist. Laboratory experiences will include the use of modalities with different age groups and disabilities. Prerequisite: OTA 105. (W)

OTA 203 Occupational Therapy Theory IV 3 1 3

An expansion of OTA 105. The student will have an opportunity to develop additional skills in delivering occupational therapy services through increased responsibilities in fieldwork placements. Course will also cover concepts of behavior management, group process, program administration and support, supervision, and current issues and problems in occupational therapy including health care costs and non-traditional service delivery. Prerequisite: OTA 105. (W)

OTA 204 Occupational Therapy Fieldwork 0 40 13

Full-time (40 hours a week) supervised fieldwork in a prearranged clinical site. Emphasis will be on the application of academically acquired bodies of knowledge. The student will be provided with indepth experiences in and responsibility for delivery of services to clients/patients with appropriate occupational therapists, registered, supervision leading to the performance level expected of an entry-level occupational therapy assistant. (OTA 204 includes two sustained one-month placements in appropriate centers.) Prerequisites: All OTA courses. (S)

OTA 205 Optional Occupational Therapy Fieldwork 0 40 13

A placement designed for those students that wish to have field experiences above the minimum required in OTA 204. These may be in specialized service delivery areas or in traditional areas as used in OTA 204. Prerequisites: All OTA courses. (SS)

PHILOSOPHY

PHI 201 Introduction to Philosophy 3 0 3

A study of various alternative philosophies concerning the nature of truth, ethics, happiness, society, and religion. Emphasis is placed on the insights of the great philosophers as well as assisting the student in developing a personal philosophy of living. (F/W/S/SS)

PHOTOGRAPHY

PHO 101 Basic Photography 2 2 3

A study of fundamental photographic equipment and materials. Both still and movie camera principles are studied in relation to the field of design and visual communications. (F/W/S/SS)

PHO 201 Advanced Photography 2 2 3

A course in advanced photographic techniques and materials. Participation in studio lighting, copying, and photography of various objects of artificial light permit a wider use of photography in visual communications. Prerequisite: PHO 101 or demonstrated skill. (D)

PHYSICAL EDUCATION

PED 101 Physical Activities for Children 2 2 3

A recreation course based on games for children beginning with the preschool child. The student will explore activities and materials for promoting the physical development of young children. Special emphasis will be on body movements, exercise, and dance. Various instructional techniques used in music, drama, and physical education will be emphasized. (S)

PED 110 Archery 0 2 1

A course designed to teach the student the fundamentals, skills, history, and rules, with special emphasis on safety practices, etiquette, and value which carry over into a useful leisure time activity. (F)

PED 111 Badminton 0 2 1

A course which deals with beginning skill in the basic strokes and a general knowledge of the history, rules, and strategy of the game. (W)

PED 112 Bowling 0 2 1

A study of the fundamentals of ball selection, grips, stance, and delivery along with rules, history, and scoring. Special emphasis is placed on spot bowling. (W)

PED 113 Golf 0 2 1

A course designed for teaching the grips, stance, and use of various clubs, along with history and etiquette of play. (F/S)

PED 114 Physical Fitness 0 2 1

An introduction to physical activity with emphasis being placed on the cardiovascular system, strength, and efficiency in executing basic skills which may arise in play and daily living. (F/W/S/SS)

PED 115 Tennis 0 2 1

An elementary course in the history, rules, and regulations. Emphasis is placed on the fundamentals of the game with prime consideration given to strokes and footwork. (F/S/SS)

PED 116 Beginning Skiing 0 2 1

An elementary course for the non-skier designed to get the individual to the point of skiing proficiently. (W)

PED 117 Beginning Swimming 0 2 1

A course designed for the non-swimmer. Includes basic strokes and water safety based upon American Red Cross programs of instruction. (S/SS)

PED 118 Aerobic Dancing 0 2 1

A physical fitness program which offers complete body conditioning. Dance patterns with unique musical arrangements are utilized to promote toning and strengthening of muscles and cardiovascular fitness.

PED 119 Tumbling and Gymnastics **0 2 1**

A course dealing with the beginning skills of tumbling, stunts, and gymnastics. Special emphasis is placed on the safety of these activities and correct body balance and form. (W)

PED 120 Handball **0 2 1**

A course designed to teach the fundamental skills, rules, history, and strategy of handball with emphasis placed on practice and skill development. (D)

PED 125 Basic Backpacking and Climbing **0 2 1**

A course designed to introduce the student to the sport of backpacking and rock climbing. (D)

PED 130 Basketball **0 2 1**

A course designed to study the rules, strategy, and history as well as the fundamental skills of beginning basketball. (W)

PED 132 Soccer **0 2 1**

A course covering the fundamental skills, history, rules, and strategy with emphasis placed on practice and execution of activity skills. (F)

PED 133 Softball **0 2 1**

The study of history, rules, skills, and strategy with emphasis on defensive play by positions. (S)

PED 134 Volleyball **0 2 1**

A course designed to include the fundamental skills, history, rules, and strategy of the game with special emphasis on carry-over value of activity. (W)

PED 135 Canoeing **0 2 1**

A course including lectures and laboratory practices in the basic skills of lake and river canoeing. All basic strokes and fundamentals of canoe safety and rescue are emphasized. It is recommended that students be able to swim before registering for this course. (F/S/SS)

PED 140 Ice Skating **0 2 1**

A course designed to develop and improve fundamental skills and techniques in ice skating. (W)

PED 141 Horseback Riding **0 2 1**

A course designed to acquaint students with the western style of riding, equipment, handling of horses, the aids, mounting, trail riding, and care of the horse. Emphasis is placed on the development of equestrian skills, safety, coordinated horse-rider balance, and proper care of horses. (F/S/SS)

PED 142 Advanced Horseback Riding **0 2 1**

A course designed to give the novice rider a more intense experience riding horses in a variety of specialized situations and to further acquaint the student with horses' behavior, equipment, the aids, and care of the horse. Emphasis is placed on the development of skills in jumping, rodeo games, and trail riding. Prerequisite: PED 141 or demonstrated skill. (S/SS)

PED 151 Modern Dance **0 2 1**

A course designed to develop and improve fundamental skills in dance movements and techniques and to encourage appreciation of dance as an art form and medium of education. (W)

PED 152 Folk and Square Dance 0 2 1

A course in the development and successful performance of dance skills in regional American folk dances. (W)

PED 154 Beginning Social Dance 0 2 1

A course designed to provide students with the basic fundamentals of popular dancing. Provides the student with information which will help them enhance their social life and given them an appreciation for dancing. (F/W/S/SS)

PED 155 Advanced Social Dance 0 2 1

A course designed to provide students with advanced fundamentals of popular dancing. All instruction is directed toward students' abilities to perform the movements with expertise. Stress is put on rhythm, appearance, and routine sequence. Prerequisite: PED 154 or approval of instructor. (F/W/S/SS)

PED 160 Individual Activity 0 2 1

A course providing specialized activities approved by the physical education and recreation department for a particular student. (D)

PED 180 Personal and Community Health 3 0 3

A course designed to develop an awareness of the personal, community, and worldwide importance of health. Special emphasis is placed on the physical, mental, and emotional aspects of the human body. Health problems, their causes and prevention are also stressed. This course may not be used as a substitute for required P.E. activity courses. (D)

PED 185 First Aid and Safety 3 0 3

A course presenting the skills, techniques, and knowledge needed to have a safe environment. Adequate class time is reserved for practical demonstrations of first aid and safety. Students are provided the opportunity to obtain the standard first aid certificate. This course may not be used as a substitute for required P.E. activity courses. (W)

PED 200 Intermediate Tennis 0 2 1

A course designed to develop a higher level of neuromuscular skill, coordination, balance, endurance, and tennis strategy. Prerequisite: student must have passed beginning tennis (PED 115) with a grade of "C" or better or have the approval of the instructor.

PED 201 Introduction to Physical Education 3 0 3

An introductory course to acquaint the student with the principles and philosophy of physical education. Special emphasis is placed on the sociological, physiological, and psychological objectives of physical education and the professional preparation essential to become a physical educator. (F)

PED 212 Physiology of Muscular Exercise 3 2 4

The application of physiological principles to muscular and organic action of the human in sports and action. This course may not be used as a substitute for required P.E. activity courses. Prerequisites: BIO 108, BIO 109. (F)

PED 213 Advanced Golf 0 2 1

A course designed to further develop the skills learned in beginning golf. The majority of class time is spent at a local golf course. Prerequisite: PED 113 or approval of instructor. (F/S/SS)

PED 215 Advanced Tennis 0 2 1

A course designed to develop the skills learned in PED 115 with special emphasis on singles and doubles strategy and tournament play within the class. Prerequisite: PED 115 or approval of instructor. (F/S/SS)

PED 216 Advanced Skiing 0 2 1

A course designed for advanced students to perfect skills in the following areas: slalom, down-hill racing, turns, and jumps, with emphasis on control and safety. Prerequisite: PED 116 or approval of instructor. (W)

PHYSICAL SCIENCE

PHS 101 Man and His Physical Environment 3 2 4

An integrated perspective of the physical sciences with a study of selected topics such as systems of measurement, the expanding universe, structure of earth, kinetic molecular theory of matter, energy (types, transformations, utilization), properties of elements and compounds, and structure and utilization of atoms. Covers the role of science in the development of civilization. (F/SS)

PHS 102 Man and His Physical Environment 3 2 4

A continuation of PHS 101. Prerequisite: PHS 101. (W/SS)

PHS 103 Man and His Physical Environment 3 2 4

A continuation of PHS 102. Prerequisite: PHS 102. (S/SS)

PHYSICS

PHY 101 Physics: Properties of Matter 3 2 4

A study of the major areas of work, energy, and power. Instruction includes such topics as statics, forces, center of gravity, and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas. (F)

PHY 102 Physics: Work, Energy, Power 3 2 4

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws, and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course. Prerequisite: PHY 101. (W)

PHY 103 Physics: Electricity 3 2 4

A study of the basic theories of electricity, types of electricity, methods of production, and transmission and transforming of electricity. Electron theory, electricity by friction, electricity by chemical action, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage, and transformers are major topics in the course. Prerequisites: PHY 102, T-MAT 102. (S)

PHY 106 Applied Mechanics 5 0 5

A study of the concepts and principles of statics and dynamics. Includes parallel concurrent and noncurrent force systems in coplanar and noncoplanar situations. Also covers concepts of centroids and center of gravity, moments of inertia, fundamentals of kinetics, and kinematics of velocity and motion. Prerequisites: T-MAT 103, T-PHY 102. (S)

PHY 107 Physics 3 2 4

A course emphasizing the fundamentals of electrical and radiation physics and the basic principles underlying the operation of X-ray equipment and auxiliary devices. Prerequisites: MAT 101, MAT 111, or T-MAT 105. (W)

PHY 108 Physics 3 2 4

A course emphasizing the fundamentals of electrical and radiation physics and basic principles underlying the operation of X-ray equipment and auxiliary devices. Prerequisite: PHY 107. (S)

PHY 109 Radiologic Physics 3 2 4

A course to provide radiology technology students with a third quarter of radiologic physics as a science elective. To be offered during the summer months and will require the same text as the preceding two quarters. Covers radioactivity, artificial radionuclides, health physics, and special radiographic equipment. Prerequisites: MAT 101, PHY 107, and PHY 108. (D)

PHY 110 Ultrasound 3 2 4

A course to provide radiology technology students with one quarter of instruction in the physical principles underlying ultrasound diagnosis. To be offered during the summer months. Covers wave characteristics in general, properties of sound waves, ultrasound transducers, characteristics of ultrasound beams, interaction of ultrasound with matter, ultrasound imaging techniques. and Doppler techniques. Prerequisite: PHY 109. (D)

PHY 120 Energy: Sources, Needs, Hazards 3 2 4

A course designed to increase the student's awareness of energy, both as a physical concept and as an economic issue. Covers topics including the properties, sources, and uses of energy; the economics of energy production; and the hazards associated with energy consumption. Students also learn how to perform energy conversion and cost calculations. Prerequisite: MAT 091. (D)

PHY 211 General Physics I 3 2 4

A study of classical and modern physics in which the analytic approach is employed and calculus is used as needed. Mechanics, sound, and heat are included. (F)

PHY 212 General Physics II 3 2 4

A continuation of PHY 211 including magnetism and electricity. Prerequisite: PHY 211. (W)

PHY 213 General Physics III 3 2 4

A continuation of PHY 212 including light, optics, and modern physics. Prerequisite: PHY 212. (S)

PHY 1101 Applied Science 2 2 3

An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, liquids and gases; and basic electrical principles. Prerequisite: MAT 1101. (W)

PHY 1101A Automotive Applied Science 2 2 3

An introduction to physical principles and their applications in the automobile industry. Topics include measurement; properties of solids, liquids, and gases; and basic electrical principles. Prerequisite: MAT 1120. (W)

PHY 1101W Applied Science 2 2 3

An introduction to the physical principles and their application to industry. Topics to be studied include measurement, properties of materials, mechanics, and basic electricity. Prerequisite: MAT 1101W. (S)

PHY 1102 Applied Science 2 2 3

The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101. (S)

PHY 1102A Automotive Applied Science 2 2 3

The second of two courses of applied physical principles. Topics include heat and thermometry, force, motion, work, energy, power, and simple machines. Prerequisite: PHY 1101A. (S)

PLASTICS

PLA 101 Introduction to Plastics 2 3 3

A course providing the student with an overview of the plastics industry. Includes opportunities to learn the properties of plastics, the range of user application, the jobs done by people in the fabrication of plastics, and the commercial production processes. Some laboratory experience is provided to give a basic understanding of how plastics are fabricated. (D)

PLA 105 Plastic Forming I 2 6 4

A course providing experience in thermoforming, injection molding, and compression molding of plastics as is done commercially. The student learns how the industrial processes work. Actual experience on industrial equipment is provided in the laboratory. Safety is stressed. Prerequisite: PLA 101 or approval of instructor. (D)

PLA 106 Materials Compounding 3 2 4

A course providing the student with a hands-on experience in materials compounding. Raw materials are compounded to produce a final product. Opportunities to learn about polymers and their reactions to certain modifiers and/or additives are included. The student acquires knowledge of various types of plastics such as polystyrenes, polyethylenes, P.V.C., and others. (D)

PLA 107 Plastic Forming II 6 6 8

A study of injection molding machines and molding techniques as well as safety. Material preparation and feeding, cycling, ejection, and secondary processes are discussed, along with machine capacity and color blending. Extruder construction and operation to include the flow of plastics in extrusion, screw design, and performance are discussed in the second phase. Blow molding focuses on the "why" and "how" of blow molding and thermoforming. Current practice in regards to methods, machine design, and mold design is reviewed. Pour casting is introduced. The use of latex and rubber molds are viewed for their advantages and speed of production in manufacturing today. Emphasis of this course is on the effect of processing variables on the finished part, quality, and cost. Prerequisite: PLA 105 or approval of instructor. (D)

PLA 107-1 (Part-time) 3 3 4

PLA 107-2 (Part-time) 3 3 4

PLA 117 Plastic Forming III 3 6 5

A continuation of PLA 107. The commercial processes of extrusion, blow molding, casting, laminating, calendering, and expansion of formable bead work are taught. Experience with all of these processes except calendering is provided in the laboratory. Emphasis on good housekeeping is stressed. Prerequisite: PLA 107 or approval of instructor. (D)

PLA 118 Fabricating, Laminating, Finishing 3 0 3

A course covering the advantages and techniques of selecting methods of fabricating and laminating plastics, including layup, sprayup, preforming, filling, and filament winding. Material selection, production techniques, and selected applications are discussed. Plastic finishing is introduced. The uses of paints and coatings are discussed as well as machine finishing of the final parts. (D)

PLA 135 Physical Properties of Plastics 2 3 3

A course in measuring the physical properties of plastics such as tensile strength, modulus of elasticity, and impact resistance in a testing laboratory. The effects of temperatures, exposure to light, and chemicals on the physical properties are explored. Tests also compare physical and chemical properties of plastics with other materials. Work safety is a part of this course. Prerequisite: PLA 106. (D)

PLA 218 Plastic Material and Applications 3 3 4

A study of classes of materials and their physical and chemical properties. Includes effects on materials of environmental factors and product areas of applications. Covers appliances, pharmaceutical/medical, packaging, automotive, aviation and marine toys, housewares, textiles, industrials, and construction. Prerequisite: PLA 215. (D)

PLA 219 Plastic Mold Design I 1 3 2

A study of metals, finishes, cavity-forming methods, mold bases, temperature control, mold layout, and runner and gate systems. Relationships with molding and molding finishing and end-use requirements are stressed. Prerequisite: MEC 210. (D)

PLA 220 Mold Design II 2 6 4

A course planned to give the student exposure to good and poor practices in making molds for injection moldings, blow molding, thermoforming, extrusion, and compression molding. It provides knowledge of materials used to make molds and some laboratory experience in making molds with plastic resins. Prerequisite: PLA 219. (D)

PLA 225 Practicum 0 6 2

A course providing supervised work experience alternating with the educational program on a schedule satisfactory to employers, the institution, and the student. This period of time enables the student to perform a planned variety of activities required of his/her specialty. The work periods are carefully planned and closely supervised by the employer and the institution to provide experiences and responsibilities commensurate with the capabilities of the student. An official agreement among the institution, the student, and the employer identify the sequence of activities to be performed by the student and define the supervisory responsibilities for the educational element of work. Prerequisite: student registered in a two-year occupational program in the institution. (D)

PLA 226 Practicum **0 9 3**
A continuation of PLA 225.

PLA 227 Practicum **0 9 3**
A continuation of PLA 226.

POLITICAL SCIENCE

POL 201 American Federal Government **3 0 3**
A study of the structure and function of the national government with emphasis on current political affairs. (W)

POL 203 Government—State and Local **3 0 3**
A study of state and local government, state-federal interrelationships, and the functions and prerogatives of the branches. Includes problems of administration, legal procedures, law enforcement, police power, taxation, revenues, and appropriations. Special attention is given to North Carolina. (F)

PSYCHOLOGY

PSY 101 Personal Development for Occupational Diploma Programs **1 2 2**
A course dealing with a person's socialization process and his/her relationship to others. Contains an examination of one's personality development and his/her occupational/career interest. Relationships with customers and business associates may be emphasized for vocational programs. (F/W/S/SS)

PSY 201 General Psychology **3 0 3**
A survey of psychology as the science of human behavior, to include theories and application of human development, learning, physiological psychology, sensation and perception, individual differences, and others. (F/W/S/SS)

PSY 202 General Psychology **3 0 3**
A continuation and expansion of PSY 201, to include behavior in groups, emotion and motivation, behavior under stress, behavior disorder, and personality and psychotherapy. Prerequisite: PSY 201. (F/W/S/SS)

PSY 203 Psychology of Adolescence **3 0 3**
An overview of social-psychological conditions of adolescence in the Western world. General areas covered are description of adolescence, formative influences, behavior settings, and problem areas. (W/S)

PSY 204 Child Behavior **3 0 3**
An application of social learning theory to child behavior with emphasis on the acquisition, retention, and extinction of behavior through preadolescence. (S)

PSY 205 Personality and Adjustment 3 0 3

The study of the whole person which permits the learner to review the varied psycho-social factors that influence personality development and maintenance while, at the same time, being given the opportunity to experience personal growth and increased awareness of his/her personal-social life. (D)

PSY 206 Interpersonal Skills 3 0 3

A course providing an opportunity for the learner to acquire self-management skills and to increase his/her level of competence in interactions with others. Specific areas covered are communications, conflicts, cooperation, use of social power, and the application of social learning principles. (F/W/S/SS)

PSY 209 Human Sexual Behavior 3 0 3

A study of physiological, social, and interpersonal aspects of sex and sexual behavior, to include the human sexual system, the sex act, attitudes and behavior, and love and intimancy. (D)

PSY 210 Human Growth and Development 3 0 3

A study of the interaction of maturational and environmental factors in the development of the individual from conception to maturity. (W)

PSY 213 Abnormal Psychology 3 0 3

An introduction to behavior pathology—description, dynamics, and modifications of abnormal behaviors, including neuroses, psychoses, and character disorders. Psychosomatic reactions are included as well as the behavior modification approaches to each disorder. Mental health maintenance is stressed.

PSY 215 Introduction to Exceptional Individuals 3 0 3

A course designed to introduce the student to the exceptional or abnormal person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. To aid the student's understanding, scheduled trips to institutions for the retarded, mentally ill, deaf, and physically handicapped are an integral part of the course. Prerequisite: PSY 201. (W)

RADIOLOGY

RDT 101 Introduction to Radiologic Technology 2 0 2

A course presenting an overall view of radiologic technology and the part radiology plays in medicine. Students become acquainted with the general structure of applied medicine. Includes good ethical principles and the responsibilities of an allied health professional. (F)

RDT 102 Basic Patient Care 3 3 4

A course designed to present the student with the basic principles of patient care with particular emphasis on those procedures required in the radiology department. (F)

RDT 103 Radiation Protection I 1 0 1

A course presenting the student with the basic principles of radiation protection as they apply to the patient, fellow workers, and the technologist. (F)

RDT 109 Introduction to Clinical Techniques 0 6 2

An introduction to the hospital experience in which the student can expect to begin patient contact by transporting patients to and from the radiology department and dressing, instructing, and caring for them in the radiology department. The student will become competent in chest and abdominal radiography. (F)

RDT 110 Introduction to Radiographic Technique 1 2 2

A very basic view of the exposure techniques used in radiographic procedures using the energized lab for demonstration. Also introduces radiographic accessories along with basic exposure computations. Prerequisites: RDT 101, RDT 103. (F)

RDT 111 Radiographic Procedures I—Extremities 6 2 7

A study in terminology and basic principles of radiographic positioning. Covers the routine views for positioning the chest, abdomen, upper extremity, shoulder girdle, lower extremity, hips, and pelvis. The student gains experience working with radiographic phantoms in the energized lab. Prerequisite: RDT 102. (F)

RDT 112 Radiographic Evaluation 1 2 2

A basic presentation of the controlling and influencing factors which affect each of the radiographic qualities. Includes learning to evaluate radiographic film characteristics. Prerequisite: RDT 110. (W)

RDT 113 Radiographic Procedures II—Skull and Spine 6 2 7

A study in proper positioning of skull, sella turcica, petrous pyramids, coccyx, sacrum, the entire spine, the bony thorax, and soft tissue of the chest. Includes both routine and special views associated with each anatomical part. Prerequisite: RDT 111. (W)

RDT 114 Clinical Techniques I 0 15 5

A course providing practical experience in the hospital, including processing of radiographs, patient care, ethical situations, and basic positioning of the upper and lower extremity, chest, abdomen, shoulder girdle, and pelvic girdle. Principles of radiographic exposure are applied by measuring each patient and utilizing a technique chart in order to set factors on the X-ray machine. Special emphasis is given to fluoroscopic procedures. Prerequisites: RDT 110, RDT 111. (W)

RDT 115 Radiographic Processing 1 2 2

A course designed to present the student with the basic principles of processing with particular emphasis on automatic processing. Includes the use of intensifying screens. Prerequisite: RDT 112. (S)

RDT 116 Radiographic Procedures III—Trauma and GI Procedures 4 0 4

A presentation of positioning for the immobile trauma patient, along with the procedures used to visualize the gastrointestinal tract. Prerequisite: RDT 113. (S)

RDT 117 Clinical Techniques II 0 24 8

A course providing practical experience to improve skills in radiographic exposure, patient care contact, and routine positioning of the skull and entire spine. Special emphasis is placed on portable and surgical radiography. Prerequisites: RDT 112, RDT 113. (S)

RDT 118 Radiographic Procedures IV—Urinary and Reproductive Radiography 1 2 2

A course focusing on radiography of the genitourinary system. Includes instruction on preparation of radiographic room, the patient, and the contrast media used in the procedures. Prerequisite: RDT 116. (SS)

RDT 119 Clinical Techniques III 0 24 8

A course providing practical experience in emergency procedures, including all routine positioning; fluoroscopic, mobile, and surgical radiography; and exposure factors. Special emphasis is placed on patient handling in all phases of radiography. Prerequisites: RDT 115, RDT 166. (SS)

RDT 120 Imaging Modalities 3 0 3

An introduction to the theory and application of imaging modalities other than radiography. (SS)

RDT 210 Radiographic Equipment and Accessories 3 0 3

A course designed to correlate radiographic equipment with the physics of radiation. Presents an indepth study of radiographic tubes and generators. Prerequisite: RDT 115. (F)

RDT 211 Clinical Techniques IV 0 24 8

A course providing practical experience in the hospital and involving more advanced work in special procedures, radiation therapy, and nuclear medicine. A continuation of practice in all routine positioning, good darkroom techniques, proper radiographic techniques, radiation protection, and good patient care. Prerequisite: RDT 119. (F)

RDT 212 Radiographic Procedures V—Angiography 3 0 3

A course designed to present the student with information on special procedures and the special equipment and skills needed to perform them. Prerequisite: RDT 118. (F)

RDT 213 Principles of Exposure I 3 0 3

The first of two courses designed to develop a thorough working knowledge of the manipulation of exposure factors. Covers the basic principles needed to construct technique charts for all situations and kilovoltage ranges. Prerequisite: RDT 210. (W)

RDT 214 Clinical Techniques V 0 24 8

A course providing practical experiences in the hospital to include routine positioning of all body parts. Special emphasis is placed on radiography of the total digestive tract, urinary tract, reproductive, and tomographic examinations. Prerequisite: RDT 211. (W)

RDT 215 Radiographic Procedures VI—Pediatric and Dental 3 0 3

A course emphasizing pediatric and dental radiography and the principles of tomography. Also covers radiation protection as it applies to these areas. Prerequisite: RDT 212. (W)

RDT 216 Principles of Exposure II 2 2 3

The second of two courses designed to develop a complete and thorough working knowledge of the manipulation of exposure factors through the completion of problems and experiments. Prerequisite: RDT 213. (S)

RDT 217 Clinical Techniques VI **0 24 8**

A course providing practical experience in the hospital and involving all radiographic positioning, good patient care, radiation protection, and manipulation of radiographic technical factors. Special emphasis is on mammography and pediatric and dental radiography. Prerequisite: RDT 216. (S)

RDT 218 Radiographic Procedures VII—Special Views of the Whole Skeleton **2 0 2**

A course emphasizing special radiographic positioning of the entire skeleton.

RDT 219 Radiation Protection II **2 0 2**

An indepth study of radiation protection as it affects all modalities. Prerequisites: RDT 103, RDT 120, RDT 217. (SS)

RDT 220 Quality Control Seminar **2 2 3**

A course designed to help the student recognize the difference between diagnostic and poor quality radiographs and learn how to maintain quality control. Prerequisite: RDT 216. (SS)

RDT 221 Clinical Techniques VII **0 24 8**

A total overview of all positioning, exposure factors, and other related materials covered in the previous seven quarters. Special emphasis is placed on regular instructor-student clinical contact. Offered in the final quarter in the clinical facilities. Prerequisite: RDT 217. (SS)

READING

NOTE: Reading Proficiency Requirements

In the interest of helping students succeed in their chosen curricula, all entering students at Caldwell Community College and Technical Institute are tested for reading proficiency. Any student who does not have the required reading proficiency level for his/her curriculum shall be advised to enroll in the reading course which is closest to his/her independent reading level.

RDG 090 Basic Reading I **1 3 2**

A course designed for students whose independent reading levels range from zero to fourth grade. Basic word recognition, word attack, comprehension, oral reading and study skills are taught. Completion of this course does not earn credit toward a degree or diploma. Prerequisite: Reading Inventory. (F/W/S/SS)

RDG 091 Basic Reading II **1 3 2**

A course designed for students whose independent reading levels range from fifth to sixth grade. Sight vocabulary, word attack, comprehension, oral reading, and study skills are taught. Completion of this course does not earn credit toward a degree or diploma. Prerequisite: Reading Inventory or RDG 090. (F/W/S/SS)

RDG 092 Basic Reading III 1 3 2

A course designed for students whose independent reading levels range from seventh to eighth grade. Intermediate vocabulary, word attack, comprehension, and study skills are taught. Beginning techniques for improving reading speed are introduced. Completion of this course earns credit only toward a vocational degree or diploma. Prerequisite: Reading Inventory or RDG 091. (F/W/S/SS)

RDG 093 Developmental Reading I 1 3 2

A course designed for students whose independent reading levels range from ninth to tenth grade. Vocabulary, word attack, comprehension, reading rate improvement, and study skills are taught. Completion of this course earns credit only toward a vocational or technical degree or diploma. Prerequisite: Reading Inventory or RDG 092. (F/W/S/SS)

RDG 101 Developmental Reading II 1 3 2

A course designed for students whose independent reading levels are tenth grade or above. Advanced vocabulary, word attack, comprehension, reading rate improvement, and study skills are taught. Prerequisite: Reading Inventory or RDG 093. (F/W/S/SS)

RECREATION

REC 101 Introduction to Recreation Services 5 0 5

A course introducing the student to the historical and philosophical foundation of recreation and leisure. The basic principles, the definition, and the impact and trends of recreation are presented. Emphasis on the different agencies providing recreational services is included with visitations being scheduled to public, private, industrial, and institutional recreational programs. (F)

REC 102 Recreation and Special Populations 3 0 3

A course designed to introduce the student to the exceptional person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. To aid the students' understanding, scheduled trips to institutions for the retarded, mentally ill, deaf, and physically handicapped are an integral part of this course. (S)

REC 103 Recreation Programming 3 0 3

A study of the underlying principles for effective recreation programming. Includes an overview of the variety of program areas associated with recreation with attention given to the recreation interests and needs of the participants. Major objectives of this course are to provide the student with a basic knowledge to enable him to plan, organize, and provide leadership in program participation and to develop an understanding of the facilities and equipment necessary. This course also emphasizes the adaptation of activities and equipment for special groups. (W)

REC 104 Rehabilitation Services 3 0 3

A course designed to aid the students' understanding of the therapies in a rehabilitation service. Special emphasis is placed on the role of the recreation therapist and how it relates to occupational therapy, music therapy, industrial therapy, physical therapy, inhalation therapy, education therapy, and volunteer service. Considerable time is centered around guest speakers from the different therapies. (F)

REC 105 Areas and Facilities **3 0 3**

A course exploring the different types of indoor and outdoor recreational areas and facilities and their use. The principles in planning, the dimensions and standards, maintenance, and operation of areas and facilities such as parks, playgrounds, ball fields, centers, tennis courts, swimming pools, and others are studied. Consideration is given to architectural barriers of areas and facilities needed by the handicapped participant. (W)

REC 106 Camping **5 0 5**

A course designed to develop an understanding of the operation of a camping program. Particular course emphasis is placed on camping for the ill and handicapped and the architectural barriers which often exist. Operational concerns, varying from the use of volunteers to the maintenance of grounds, are covered in this course. (S)

REC 121 Social Recreation **3 0 3**

A course to develop skill in planning social recreational activities. Party planning, special events, social games, quiet games, trips and picnics, and decorating are emphasized in this course. For practical experience, students have the opportunity to work with different age groups on community projects in social recreation. (W)

REC 202 Recreation Leadership **3 0 3**

A course to build basic skills in working with people, an important asset to the recreation leader who daily works with program participants, volunteers, staff, and the public. This course focuses on the types of leadership, parliamentary procedure, role playing, interviewing, training and recruiting volunteers, and human relations. Students have the opportunity to observe community leaders and to evaluate their effectiveness. (W)

REC 203 Water Sports **1 4 3**

A course intended to develop an understanding of the values, objectives, and skills involved in a swimming and water sports program. Particular attention is given to swimming and water activities for children, adults, and the handicapped. The organizational and administrative aspects of a swimming program, teaching progressions and methods, and water games are included. The water skills are taught at a local pool. Students are afforded the opportunity to obtain a senior life saving certificate. (S)

REC 205 Outdoor Education **3 0 3**

An investigation of the history and significance of the outdoor education movement and an examination of current ideas and practices. Attention is focused on environmental problems, conservation, wildlife, nature, fisheries, and other ecological points of interest. Field trips supplement lectures. (S)

REC 208 Field Work **0 6 2**

A course providing for student field assignments in the municipal and hospital recreation settings to begin the fourth quarter of the recreation curriculum. The field placement is designed to give the student practical experience while undertaking academic work. The student works under the direction of a full-time professional. Evaluation reports of the field work are submitted by the student and the supervisor. Prerequisite: two quarters of study in the recreation curriculum is required before any internship is permitted. (F)

REC 209 Field Work **0 9 3**

A required nine hours of field placement to be completed during the fifth quarter of the recreation leadership curriculum. This field work is under the supervision of a professional worker in the specific area of interest. (W)

REC 210 Field Work **0 15 5**

The sixth quarter of the recreational leadership curriculum is primarily practical work experience in the student's chosen area of interest. Fifteen (15) hours of field work per week are devoted to this placement. This placement is under the direction of a full-time professional. (S)

REC 211 Recreation Seminar **1 0 1**

A course to prepare the student to become a professional recreation leader. Special emphasis is given to professional organizations, job applications, personal interviews, personal appearances, and interpersonal relationships. The recreation faculty coordinates this seminar. Prerequisite: completion of 5 successful quarters in the recreation leadership curriculum. (S)

REC 215 Dance **1 4 3**

A skill course designed to develop specific talents in the area of recreational dance. Activity sessions stress the different types of dances, the skills involved, and the techniques used in teaching dancing to different age groups. Appropriate dances with adaptations for the different handicapped groups are also stressed. Adequate class time is used for student participation and practice. (F)

RELIGION

REL 201 Introduction to Old Testament **3 0 3**

An examination of history, literature, and religious ideas of the Ancient Near East as reflected in the Old Testament. (F/W)

REL 202 Introduction to New Testament **3 0 3**

A critical examination of the rise and spread of the Christian faith as recorded in the New Testament with special emphasis in the ministries of Jesus and Paul. (W/S)

REL 203 World Religion **3 0 3**

An introduction to the major religions of the world, including Hinduism, Buddhism, Confucianism, Taoism, Judaism, Islam, and Christianity, based on their history, literature, teachings, and present day practices. (F/W/S/SS)

SCIENCE-ENVIRONMENTAL

SCI 100 Natural Environment **3 0 3**

A survey course combining the general areas of biology, chemistry, and physics. The content is intended to relate these three areas to each other as they influence everyday living.

SOCIOLOGY

SOC 101 Community Resources **3 0 3**

A study of the services extended to families in the local, state, and federal community with emphasis placed on one's being able to recognize and use local, state, and federal resources in achieving families' goals and implementing their value system.

SOC 201 Introduction to Sociology **3 0 3**

A study of the fundamental principles and concepts of sociology with emphasis on contemporary American institutions in relation to technological change, ethnic groups, population trends, and social control. (F/S/SS)

SOC 203 Contemporary Problems and Social Issues **3 0 3**

A critical analysis of some of the major current social issues and problems in American society. (S/SS)

SOC 205 Marriage and the Family **3 0 3**

The study of family relationships, their forms and functions. Included in this study are cultural patterns, mate selection, sex roles, marital adjustment and maladjustment, child rearing, and the future of the American family. (F/W/S/SS)

SPANISH

SPA 101 Elementary Spanish **3 2 4**

A study of the basic elements of Spanish with emphasis on listening comprehension, oral communication, pronunciation, and grammar. The beginning sequence is designed for students with fewer than two years of high school Spanish. A two-hour lab is required for beginning levels. (F)

SPA 102 Elementary Spanish **3 2 4**

A continuation of Spanish 101. Prerequisite: SPA 101. (W)

SPA 103 Elementary Spanish **3 2 4**

A study of verb tenses, vocabulary, and sentence patterns with emphasis on understanding and speaking the language. Prerequisite: SPA 102. (S)

SPA 201 Intermediate Spanish **3 0 3**

A continuation of the study of Spanish with emphasis on oral communication, reading, writing, culture, and history. A lab is provided for those in intermediate levels needing or desiring extra work. Prerequisite: SPA 103 or two years of high school Spanish and approval of instructor. (F)

SPA 202 Intermediate Spanish **3 0 3**

A continuation of intermediate Spanish with emphasis on listening and understanding, speaking, reading, and writing. Prerequisite: SPA 201. (W)

SPA 203 Intermediate Spanish **3 0 3**

A continuation of intermediate Spanish with emphasis on the four basic skills and on grammar. Prerequisite: SPA 202. (S)

SPA 211, 212, 213 Advanced Spanish **3 2 3**

A sequence of courses conducted in the language, stressing the culture and history of Spanish, principally as reflected in the literature. Emphasis is on advanced composition and reading of selections from Spanish literature. Prerequisite: SPA 203. (D)

SPEECH

SPH 100 Interpersonal Communication 3 0 3

A course to help the student develop speaking skills in informal speaking situations. Emphasis will be placed on improving one's self-concept in relation to communication and working toward overcoming self-consciousness. Emphasis is placed on the communication process, interpersonal communication, non-verbal communication, and participating in small groups. (F)

SPH 101 Fundamentals of Speech 3 0 3

A study of oral communication with emphasis on speech theory, speech composition, preparation, and presentation. (F/W/S/SS)

UPHOLSTERY

UPH 1111 Upholstery Materials and Methods I 1 11 5

A study of the history and periods of furniture. Includes tools and equipment, hammer technique, staple gun technique, spring up methods, and webbing and burlap application. (D)

UPH 1112 Upholstery Materials and Methods II 1 11 5

A continuation of UPH 1111 and basic methods for inside and outside upholstery and cushion styles. Prerequisite: UPH 1111. (D)

UPH 1113 Upholstery Materials and Methods III 1 11 5

A course in the styles of furniture, including sofas, love seats, and recliners. Covers technqiues in trimming band tufting and piping with continuous practice in these areas. Prerequisite: UPH 1112. (D)

UPH 1114 Upholstery Sewing I 1 11 5

A study of upholstery sewing. Includes basic operations of the sewing machine and simple sewing techniques. (D)

UPH 1115 Upholstery Sewing II 1 11 5

A course covering advanced upholstery sewing, sewing matched stripes, making patterns, and other sewing techniques. Prerequisite: UPH 1114. (D)

UPH 1116 Upholstery Cutting I 1 11 5

A course providing job experience devoted to basic cutting techniques, how to measure frames, cutting with shears, and lay cutting. (D)

UPH 1117 Upholstery Cutting II 1 11 5

A course in making patterns, cutting matched patterns, and lining up and cutting striped patterns. Prerequisite: UPH 1116. (D)

WELDING

WLD 101 Welding Practices 3 0 3

A course of study designed to acquaint the student with the fundamentals of shop safety, shop procedures, and tool and welding machine use and care. Study of welding theory, techniques, and machines is limited to nomenclature and function as it relates to proper welding knowledge of application and technique. During the course, knowledge and skill development include welding equipment and tools, oxyacetylene welding, gas welding of various type joints, and selection of proper welding materials used in the gas process. Related instruction develops symbol recognition. (F)

WLD 120 Welding, Oxyacetylene **1 3 2**

An introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Covers welding procedures such as practice in puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, and hard and soft soldering. Safety procedures in the use of tools and equipment are stressed through the program of instruction. The student performs mechanical testing and inspection to determine quality of the welds. (F/W/S)

WLD 121 Arc Welding **1 3 2**

A study of the operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect weaknesses in welding. Safety procedures in the use of tools and equipment are emphasized throughout the course. (S)

WLD 122 Commercial and Industrial Practice **2 3 3**

A course designed to build skills through practices in simulated and actual industrial processes and techniques. Includes sketching and layout on paper the size and shape description, listing the procedure steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection. Prerequisites: WLD 120, WLD 121. (F/S)

WLD 1101 Auto Body Welding **1 3 2**

A course providing welding demonstrations by the instructor and practice by students in the welding shop. Includes safe and correct methods of assembling and operating the welding equipment. Practice is given for bronze welding, fusion welding, fillet welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work. (F)

WLD 1112 Welding Codes and Inspection **3 0 3**

An introduction to the various types of tests and testing procedures used in testing the quality of the weld. Students perform the details of the test which gives adequate information on the quality of the weld. Tests to be performed include guided bend, tensile, magnetic partical, dye penetrant, X-ray, and hardness. Various sections of codes AWS, ASME, and API are studied according to the student's interest. (F)

WLD 1120 Welding Theory and Practice I **3 12 7**

A course dealing with the orientation to all oxyacetylene, shielded ARC shop equipment. Includes basic fundamentals of equipment set-up, safety demonstrations, practice procedures with group and individual demonstrations by the instructor. (F)

WLD 1120-1 (Part-time) **2 6 4**

WLD 1120-2 (Part-time) **1 6 3**

WLD 1121 Welding Theory and Practice II 2 18 8

A course providing the student with a thorough understanding of ARC welding fundamentals and safety. Manual skills are developed to produce high quality ARC welds in all positions on mild steel. (W)

WLD 1121-1 (Part-time) 1 6 3

WLD 1121-2 (Part-time) 1 6 3

WLD 1121-3 (Part-time) 0 6 2

WLD 1122 Commercial and Industrial Practice 3 9 6

A course designed to build skills through practices in simulated and actual industrial processes and techniques. Includes sketching and layout on paper the size and shape description, listing the procedure steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and non-destructive tests and inspection. Prerequisites: WLD 1120, WLD 1121. (SS)

WLD 1122-1 (Part-time) 2 6 4

WLD 1122-2 (Part-time) 1 3 2

WLD 1123-1 Inert Gas Welding I (TIG) 2 6 4

A course providing the student with a thorough understanding of tungsten inert gas ARC welding fundamentals and safety. Provides training to develop the manual skill necessary to make high quality welds in all positions. Prerequisite: WLD 1121. (S)

WLD 1123-2 Inert Gas Welding II (MIG) 2 6 4

A course providing the student with a thorough understanding of metallic inert gas welding fundamentals and safety. Provides training to develop the manual skills necessary to make high quality welds in all positions. (SS)

WLD 1124 Pipe Welding 3 12 7

A course designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the ASME code. Prerequisite: WLD 1121. (S)

WLD 1124-1 (Part-time) 2 6 4

WLD 1124-2 (Part-time) 1 6 3

WLD 1125 Certification Practices 3 6 5

A course involving practice in welding the various materials to meet certification standards. The student uses various tests, including the guided bend and the tensile strength tests, to check the quality of his/her work. Emphasis is placed on attaining skill in producing quality welds. Prerequisites: WLD 1121, WLD 1124. (SS)

WLD 1126 Advanced Metal Inert Gas Welding 2 8 5

An intensive study of advanced metal inert gas welding with emphasis on both production and general uses of this process. Studies are made in wire types, size, and selection. The student works with this type machine exclusively, with practice in low and high carbon steels, stainless steels, and aluminum. Shielding gases used include carbon dioxide, argon, and various mixtures. Prerequisite: WLD 1123. (D)

WLD 1129 Basic Welding 1 3 2

A study of the basic characteristics of metals, equipment, and its construction and operation presented by means of audiovisuals and other educational media. Includes welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating gas and arc welding equipment are stressed. Practice is given in surface welding, bronze welding, silver-soldering, and flame-cutting and arc welding methods applicable to mechanical repair work. (F)

WLD 1130 Auto Body Welding 1 3 2

A course providing welding instruction and shop demonstrations in modern welding methods used by mechanics and auto body repairmen to fabricate steel and to maintain the equipment. The student learns procedures and techniques of joining frame members, supporting members, struts, braces, and other parts according to approved practices. (W)

WLD 1131 Design of Welded Structures 3 6 5

A study of proper procedures used in the welding industry for fabrication and reinforcement. The student works with various methods of reinforcement and placement of reinforcing members. Studies are made of strengths of various metals, both ferrous and nonferrous. Prerequisite: WLD 1122 or approval of instructor. (D)

WLD 1132 Advanced Tungsten Inert Gas Welding 2 8 5

A course consisting of working exclusively with this process with emphasis on proper selection of materials, filler rod, shielding gases, and electrode manipulation. There are exercises in cost estimating and job estimating. The majority of the work is in nonferrous metals. Prerequisite: WLD 1123. (D)

WLD 1133 Operations of the Job Shop 5 3 6

A course dealing with the problems that are unique in the job shop. There are exercises in job estimating and cost estimating. Studies are made in material procurement and handling. Proper procedure for bidding on jobs is stressed. Prerequisite: WLD 1123. (D)

WLD 1134 Welding Power Supplies 3 1 3

A study of alternating current, direct current, and combination welding power supplies. Studies are also made of portable motor generator units. High frequency and remote control power supplies are covered, with exercises in machine selection to match the operation to be performed. Prerequisite: WLD 1121. (D)

CONTINUING EDUCATION PROGRAMS

GENERAL INFORMATION

WHAT IS IT?

Continuing Education provides an opportunity to:

(1) Finish high school
(2) Upgrade and improve present job skills
(3) Be trained while on the job
(4) Prepare for future employment
(5) Learn new hobbies and develop creative skills or talents for leisure activities
(6) Learn better home maintenance and repair techniques.

The continuing education department of Caldwell Community College and Technical Institute is an outreach service for Caldwell and Watauga counties. The program is designed to meet the needs and desires of the community by offering a wide variety of subjects taught at convenient hours in convenient locations in Caldwell and Watauga counties.

WHO CAN ENROLL?

Any individual who is 18 years of age or whose regular high school class has graduated. Persons between 16 and 18 years old who have special needs may enroll if they have the WRITTEN PERMISSION of the school system last attended. (Under certain conditions, the policy on page 9 will apply.)

WHAT DOES IT COST?

Most courses require a non-refundable $5 registration fee. Some courses, such as adult basic education, are free. Any charges should be paid at the first class session. Textbooks or special materials may be purchased from the campus bookstore.

HOW CAN I ENROLL?

Persons can register for a class by attending the first session. Applicants are usually admitted on the "first come, first served" basis.

HOW LONG DO COURSES LAST?

Most courses last approximately 10 to 11 weeks, depending on the nature of the course.

WHERE ARE CLASSES HELD?

Adult classes are held anywhere in Caldwell and Watauga counties where there are adequate facilities and equipment. In addition to the college campus, classes are held in community centers, public school buildings, churches, businesses, factories, and private homes.

WHEN ARE CLASSES HELD?

Day and evening classes are usually scheduled on a quarterly basis. Most classes meet once or twice a week, Monday through Friday, until the end of the course.

HOW DO I KNOW WHEN A COURSE I WANT IS OFFERED?

Information about classes is released each quarter through the local news media. Quarterly schedules are published and distributed by the college.

Information concerning course offerings may be obtained by calling the continuing education department at 396-3311 (Granite Falls), or 728-4323 (Lenoir), or 297-2185 (Boone).

WHAT CREDIT CAN I GET?

Most continuing education courses are noncredit. However, continuing education units (CEU) will be given for certain courses. These courses are designated and advertised as giving CEU credit prior to each quarter.

WHAT COURSES ARE OFFERED?

A partial list and description of courses available are listed in this catalog.

However, if 12 or more people are interested in a subject not listed and a qualified instructor and suitable space are available, Caldwell Community College and Technical Institute will be happy to offer the course.

ADULT HIGH SCHOOL DIPLOMA PROGRAM

The adult high school diploma program is designed to give adults who have less than a twelfth-grade education another opportunity to finish high school. This program is not designed to compete with regular high school programs.

WHAT DOES IT COST?

A non-refundable $5 registration fee is required. Books, materials, and supplies may be purchased for a small fee.

WHO CAN ENROLL?

Adults 18 years of age who are not currently enrolled in any public school may enroll in the program. Students 16 and 17 years of age may enroll if they have a referral from an official of the last school system attended. (Under certain circumstances the policy on page 9 will apply.)

DO I NEED A TRANSCRIPT?

Since adult high school classes do not operate on a unit system, the adult student is **not** required to submit a transcript of high school records.

HOW LONG WILL IT TAKE TO GRADUATE?

Adults may progress at their own rate of speed and earn a high school diploma by satisfactory performance on the high school equivalency tests.

WHO AWARDS THE DIPLOMA?

Through cooperation between Caldwell Community College and Technical Institute and the Caldwell and Watauga County Boards of Education, the adult high school diploma is awarded after the adult has passed the required tests in English, math, science, and social studies.

ADULT BASIC EDUCATION

WHAT IS IT?

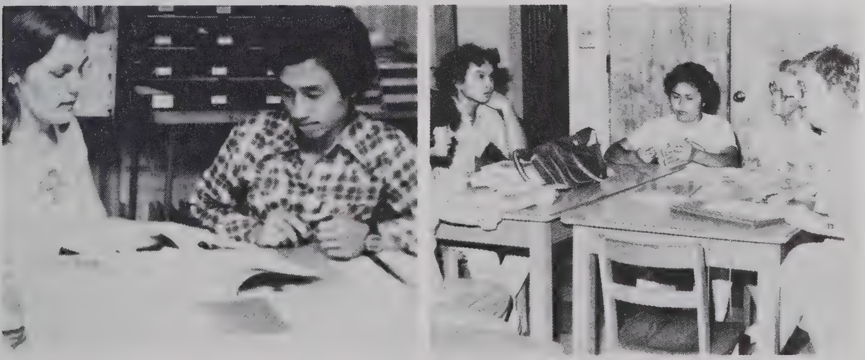
The adult basic education program is designed to improve an adult's ability to speak, read, and write the English language. Other areas such as arithmetic, science, and social studies are included in the program. It provides pre-high school level instruction. All materials have been especially prepared for adults with emphasis on individual needs and interests.

WHO CAN ENROLL?

Adults who are 16 years of age or older not enrolled in public school who are presently functioning with less than eighth grade skills.

HOW CAN I ENROLL?

Call or write the continuing education department of Caldwell Community College and Technical Institute.



WHAT DOES IT COST?

All classes, books, materials, and supplies for this program are free.

WHERE ARE CLASSES HELD?

Classes are held in various locations in Caldwell and Watauga counties. New classes may be started with 8 to 10 students if a qualified instructor and suitable space are available.

WHEN ARE CLASSES HELD?

Classes are usually held twice a week, either day or evening. Adult basic education classes are held on a continuing basis. Interested persons should contact the continuing education department for further information.

ADVANCEMENT LABORATORY

The advancement laboratory is a study center where students use self-teaching materials to:

1. Prepare for and take the high school diploma examination
2. Work through elementary to high school level
3. Upgrade skills in specific subject areas
4. Overcome deficiencies in subjects needed for college entrance
5. Study in areas of general interest

Advancement lab personnel are available to assist those needing help and to administer required testing.

WHAT DOES IT COST?

A non-refundable $5 registration fee is charged for studying in the advancement laboratory. Books and materials may be purchased for a small fee.

WHEN AND WHERE?

The lab is on the college campus and is open from 8:00 a.m. to 9:00 p.m., Monday through Thursday. On Friday, it is open from 8:00 a.m. to 5:00 p.m.

WHO CAN ENTER?

Adults who are 18 years of age or older. Students 16 and 17 years of age must have a referral from an official of the last school system attended. (Under certain circumstances, the policy on page 9 will apply.)

COURSES AVAILABLE IN THE ADVANCEMENT LAB*

READING AND ENGLISH
Reading Laboratories
Effective Reading
Study Skills Library
Grammar
Vocabulary
Literature
Business Letters
Communication Skills
Spelling
Phonics
SOCIAL STUDIES
United States Geography
United States History
American Government
How a Bill Becomes a Law
The Constitution
SCIENCE
Anatomy and Physiology
Biology and Chemistry
Principles of Chemistry
Medical Terminology
Work and Machines
Physics
Vectors
Meterology and Astronomy
MATHEMATICS
Basic Mathematics
Algebra
Geometry
Trigonometry
Logarithms
Computing Square Roots
Introductory Calculus
The Slide Rule
Introduction to Probability
Think Metric

BUSINESS
Business Mathematics
Basic Filing
Bookkeeping
Accounting Fundamentals
Gregg Shorthand
Management
Typing
FOREIGN LANGUAGE
French
Spanish
German
GENERAL INTEREST
Interior Decoration
Learning Through Association
Effective Listening
Effective Notetaking
The Smile of Success
Psychology
Introductory Sociology
Bridge
How To Prepare For:
  Civil Service Exam
  Graduate Records Exam
  Miller Analogies Test
  National Teachers Exam-Commons

**This is only a partial listing of courses available in the advancement laboratory.*

PRE-JOB PROGRAM

WHAT IS IT?

The Pre-Job program is designed to instruct individuals in how and where to look for employment suited to their interests and skills. The program offers opportunities to those who seek self-improvement and successful employment. It also provides an opportunity for persons to continue their education.

The main topics covered in the program are:

1. How to find a suitable job and the interviewing skills needed to obtain the job
2. How to develop confidence, positive attitudes, and communication skills
3. How to manage personal finances
4. Job placement assistance after completion of the program

WHO CAN ENROLL?

Unemployed or underemployed high school graduates or dropouts between the ages of 18 and 65 who are physically and mentally capable of gainful employment.

WHAT DOES IT COST?

A non-refundable $5 registration fee is charged at the beginning of the class.

WHERE ARE CLASSES HELD?

The Pre-Job center on the Caldwell Community College and Technical Institute campus.

WHO DO I CONTACT?

WRITE: Pre-Job Center
Caldwell Community College and
Technical Institute
1000 Hickory Boulevard
Hudson, North Carolina 28638
CALL: (704) 728-4323 or 396-3311

GENERAL ADULT OFFERINGS

Numerous continuing education noncredit classes are offered under the heading of general adult education. Many of these classes are taught off campus in recreation centers, schools, churches, and in a few instances, private homes.

General adult courses fall into the broad categories of the arts, crafts, job training and upgrading, practical personal skills, and special needs courses such as sign language for the deaf and driver's education for adults.

Special programs usually available on an annual basis include Great Decisions, social issues, comparative religions, and projects funded by the North Carolina Endowment for the Humanities.

HOME ECONOMICS

Caldwell Community College and Technical Institute offers varied courses in the home economics area. Training and education courses are provided for the individual and the professional. Among general interest courses offered are the following:

Beginning and Advanced Sewing
Tailoring
Clothing and Pattern Alterations
Diet and Weight Control
Basic Nutrition
Nutrition Education for the Elderly
Interior Design

A special six-course study for school food service personnel is designed to train the beginning employee and to upgrade the skills and techniques of the experienced food service manager and employee. A certificate is given upon completion of each course, with recognition for the completion of all courses given by the North Carolina Department of Public Instruction. Courses included in the program are as follows:

Overview
Equipment Use and Care
Organization and Personnel Management
Basic Nutrition and Menu Planning
Quality Food Production
Food Procurement

EARLY CHILDHOOD AND PARENT EDUCATION

Caldwell Community College and Technical Institute offers a certificate program in early childhood education and a wide variety of courses in parent/family education. Among courses included in these areas are the following:

Working with the Young Child
Early Childhood Education
Physical Activities for Children
Effective Parenting
Nutrition in the Home
Math, Language, Science, and Music in Early Childhood

The program is designed for preschool assistants and parents.

TEACHERS' CERTIFICATE RENEWAL

Teachers' certificate renewal courses are provided in Caldwell and Watauga counties in cooperation with the local public schools. Students receive one credit toward certificate renewal for each 10 hours of successfully completed work. Course offerings have included:

- Mental Health in the Classroom
- Metric System
- Teaching the Exceptional Child
- Astronomy
- Minority Awareness
- History of Caldwell County
- Sports Medicine
- Communication Skills
- Drug Abuse/Use
- Education and Society
- Great Decisions
- Career Education
- Modern Novel
- Industrial Articulation
- Environmental Curriculum
- Value Clarification

MANAGEMENT DEVELOPMENT PROGRAM

The management development program offered by Caldwell Community College and Technical Institute is designed to give the new manager or supervisor a headstart and to make a good manager better. The program is based on individual development instead of tests and grades. Managers and future managers should enroll in the program with the idea of improving their management skills.

Classes will be scheduled on a regular basis day or night, in the plant or at the college. Interested persons may preregister by calling the department of continuing education. Tuition is $5.00 and there may be a small charge for books, materials, and supplies.

Each person completing 150 hours of instruction will receive a diploma in management development. An individual could earn the diploma in approximately one year by attending class one night per week during that year. Course offerings have included:

- Art of Motivating People
- Principles of Supervision
- OSHA & First Aid
- Human Relations & Motivation
- Effective Communications
- Economics & Controlling
- Job Instruction Training
- Labor Laws for Supervisors
- Effective Writing
- Effective Speaking
- Speed Reading
- Creative Thinking
- Job Analysis Training
- Employee Evaluation and Interviewing
- Motion and Time Study

NEW AND EXPANDING INDUSTRY TRAINING

One of the basic objectives of Caldwell Community College and Technical Institute is to stimulate the creation of more challenging and rewarding jobs.

In the endeavor to accomplish this objective, the college provides a training service for new and expanding industries in the community.

Subject to minimal limitations, the college, in cooperation with the Industrial Service Division of the N.C. Department of Community Colleges, will design and administer a special program for training the production manpower required by any new and expanding industry creating new job opportunities in North Carolina.

The major purposes of this program are to help new or expanding industry meet immediate manpower needs and to encourage industry to develop long-range training programs to satisfy continuing replacement and retraining needs.

The program includes:

1. Consultation in planning training program needs
2. Selection and training of instructors who may be recruited from the company and/or outside sources
3. Payment of instructors' wages
4. Provision of suitable space for a temporary training facility
5. Assumption of installation costs of equipment in temporary training facility
6. Payment of one-half the cost of nonsalvageable materials expended in the training program.

SKILL TRAINING PROGRAMS

Caldwell Community College and Technical Institute's continuing education division offers courses designed either to upgrade job skills, to help persons develop new skills so that they may become more proficient in their vocation, or to train persons in new occupations, vocations, or job skills.

The courses are offered at a time and place convenient for the students, based on the availability of the number of students, the facilities, and necessary equipment. These courses can also be offered in a plant or other places of business where certain skill training is needed.

Skill courses that may be offered by the institution cover a wide area of skills from office to plant.

APPRENTICESHIP PROGRAM

The apprenticeship program has been recognized as one of the leading methods for acquiring the skills and knowledge necessary to become job-skilled craftsmen. Apprenticeship programs are usually on-the-job training with related instruction. CCC & TI, in cooperation with the Apprenticeship Division of the North Carolina Department of Labor, Business and Industry, provides the related instruction for the apprenticeship. The college coordinates and conducts the related instruction for both registered and non-registered apprentices.

The apprentice may attend the classroom portion of training during the day or evening when the desired classes are offered. Some of the courses may be studied in the programmed method in the individualized instruction program.

An individual desiring entrance into such a program should consult his/her employer, apprenticeship representative, or the coordinator of industry programs at CCC & TI.

APPRENTICE LINEMAN'S TRAINING PROGRAM

The apprentice lineman's training program is designed to provide job training to men and women who work in public electric utilities, private electric utilities, telephone companies, municipalities, electric cooperatives, and other related lineman groups.

Listed below are the types of courses that are taught in the lineman's training school at Caldwell Community College and Technical Institute. Most of these classes consist of 40 hours of training and are usually completed in one week.

Apprentice Lineman I
Apprentice Lineman II
Apprentice Lineman III
Apprentice Lineman IV
Advanced Bucket School
Advanced Hot Stick School
Transformer School
Staking School
Underground Cable School

HEALTH RELATED TRAINING

The department of continuing education of Caldwell Community College and Technical Institute offers special courses in nursing and other health related occupations to the local community. Many of these special programs are administered in cooperation with the area health institutions and agencies. Course offerings have included:

Nurse's Assistant
Ward Secretary
Geriatric Assistant
First Aid CPR Training
Coronary Care
Pre-Natal Care
Lamaze
Hospital Inservice Training
Public Health Agencies Inservice Education
Coronary Care Nursing
Emergency Medical Technician
Industrial First Aid
Industrial Safety
Audiology (Hearing Testing)
Registered Nurse Refresher Courses

SPECIAL NEEDS PROGRAMS

To meet the total educational needs of the community, Caldwell Community College and Technical Institute's department of continuing education offers courses for "special populations." Classes are conducted in sheltered workshops, rest homes, nursing homes, senior centers, treatment centers, prisons, and varied other meeting places where persons with special needs are located.

The types of classes offered are directly related to the needs of each group but, overall, represent a wide variety of offerings. These have included auto mechanics, small engine repair, activity coordination, crafts, proper grooming and hygiene, driver's training, woodworking, quilting, group speech therapy, culinary arts, reality orientation, certification in activity coordination, alcohol and drug abuse, nutrition, basic home living skills, and job readiness.

FIRE SERVICE TRAINING

Caldwell Community College and Technical Institute offers fire service training to both volunteer and career firemen. This training program is designed to increase firemen's technical knowledge, to train fire service personnel in the latest techniques and methods of fire fighting, to improve their skills in fire-ground operations, and to expose them to a variety of fire situation experiences.

The training program is taken directly to the individual fireman. Training sessions are held in local fire departments allowing the individual to be trained as an organized group utilizing equipment they would ordinarily use in controlling fire.

A certificate is awarded to each person successfully completing the course. Course offerings have included:

Industrial Fire Brigade
Portable Fire Extinguisher
Business Fire Safety
Firemanship Training (Beginning and Advanced)
Fire Apparatus
Hose Practice
Breathing Apparatus
Home Fire Safety
Pump Schools
Rope Practices

POLICE SCIENCE

Caldwell Community College and Technical Institute offers police science training to personnel of law enforcement agencies. The goal is to promote and provide adequate training and education courses in legal and technological fields that will keep law enforcement officers abreast of advancements in law enforcement techniques.

North Carolina State Law requires that new police officers complete 160 hours of police science training within one year after employment. These courses are offered annually by the college. Courses are also offered to those officers who wish to upgrade job skills.

A certificate is issued upon completion of each course but credit cannot be transferred and applied toward an associate in applied science degree. Course offerings have included:

Police Report Writing
Police Firearms Training
Police Science I
Police Science II
Weapons Safety
Police Communications/Radio
Introduction to Criminal Investigation
Jail School
Laws of Arrest
Inmate Counseling
Civil Disorder
Cartridge Reloading
History of Constitutional Law
Chemical Tests/Alcohol

ADDITIONAL COURSES

If 12 or more people want to learn about a subject which is not currently offered, the college will make every effort to find a qualified instructor and offer the course anywhere in Caldwell or Watauga counties where suitable space is available. Requests may be made by calling the continuing education department 728-4323 (Lenoir), 396-3311 (Granite Falls & Hickory), or 297-2185 (Boone).

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Emma Murphy
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Cindy Worley
Supervisor, Word Processing

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  Maintenance Supervisor
Billy Roberts
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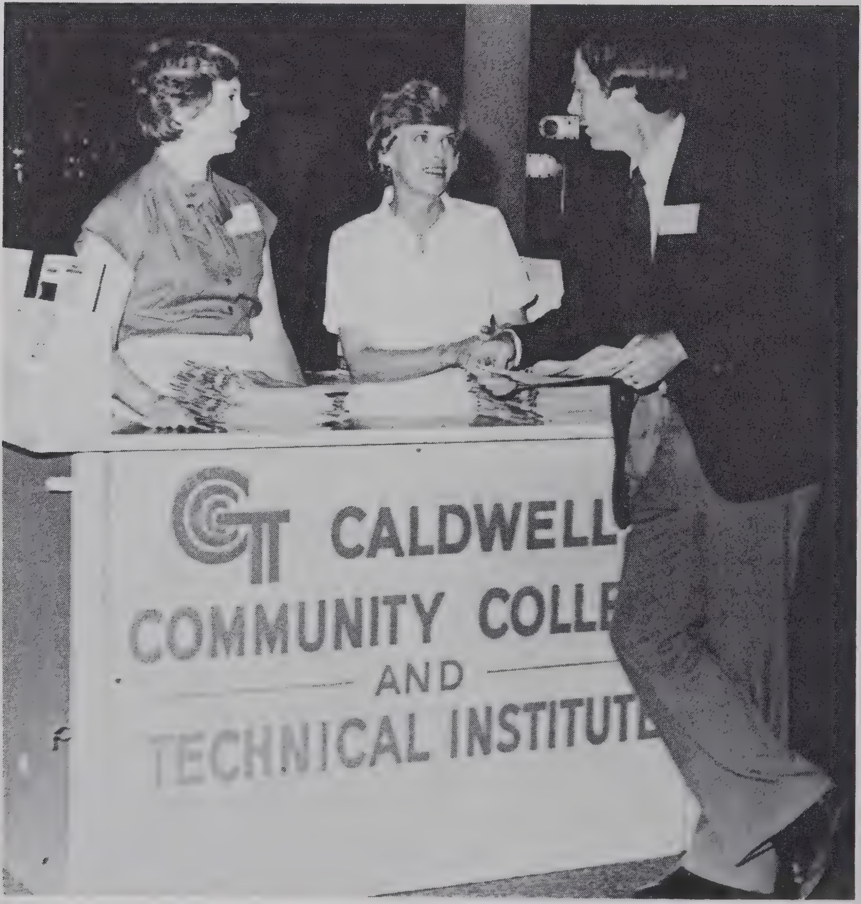
Louise Salley
  Maid
Kenneth Swanson
  Electrician/Air Conditioning



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Caldwell Community College & Technical Institute 1982-83

Caldwell Community College and Technical Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as and when deemed necessary.

Students having questions not answered in this publication may obtain further information from the Student Development Office, Caldwell Community College and Technical Institute.

Caldwell Community College and Technical Institute does not discriminate against any person on grounds of race, creed, color, sex, handicap, or national origin.

Cover photo by Sherry Wrenn.

CALDWELL COMMUNITY COLLEGE AND TECHNICAL INSTITUTE

CALDWELL COUNTY CAMPUS

Highway 321 South
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Hudson, North Carolina 28638-1399
Telephones 704/728-4323 or 704/396-3311

WATAUGA COUNTY DIVISION

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Route 6, Box 240B
Boone, North Carolina 28607-9229
Telephones 704/297-2185 or 704/297-2186

GENERAL CATALOG

Volume XI, Number 1
Effective September 1, 1982

ACADEMIC CALENDAR 1982-83

FALL QUARTER, 1982-83

August 9 - August 27	Fall Short Term for Radiology Tech/ Nuclear Medicine
August 16 - August 27	Fall Short Term for Occupational Therapy Assistant
August 31, Tuesday	Orientation/Registration for New Students, Lenoir Registration, Boone Campus
September 1, Wednesday	Faculty/Staff Orientation/Professional Development
September 2, Thursday	Registration, Lenoir Campus
September 7, Tuesday	Classes Begin
September 7, 8, 9	Late Registration
October 14, Thursday	Last Day to Drop Course
October 27, Wednesday	Early Registration, Boone Campus
November 1, Monday	Early Registration, Lenoir Campus
November 18, 19, 22	Exams
November 22, Monday	Fall Quarter Ends

WINTER QUARTER, 1982-82

November 23, Tuesday	Registration, Boone Campus
November 25, 26	Thanksgiving Holidays
November 29, Monday	Registration, Lenoir Campus
December 1, Wednesday	Classes Begin
December 1, 2, 3	Late Registration
December 21, Tuesday	Christmas Holidays Begin After Last Class
December 24 - January 2	Institution Holidays
January 3, Monday	Classes Resume
January 13, Thursday	Professional Development Day
January 20, Thursday	Last Day to Drop Course
February 7, Monday	Early Registration, Boone Campus
February 9, Wednesday	Early Registration, Lenoir Campus
February 24, 25, 28	Exams
February 28, Monday	Winter Quarter Ends

SPRING QUARTER, 1982-83

March 2, Wednesday	Registration, Lenoir Campus
March 3, Thursday	Registration, Boone Campus
March 7, Monday	Classes Begin
March 7, 8, 9	Late Registration
April 1, Friday	Easter Holidays Begin After Last Class
April 4, Monday	Institution Holiday
April 11, Monday	Classes Resume
April 20, Wednesday	Last Day to Drop Course
April 28, Thursday	Professional Development Day

May 2, Monday	Early Registration for Summer Quarter, Lenoir
May 4, Wednesday	Early Registration for Summer Quarter, Boone
May 26, 27, 30	Exams
May 30, Monday	Spring Quarter Ends

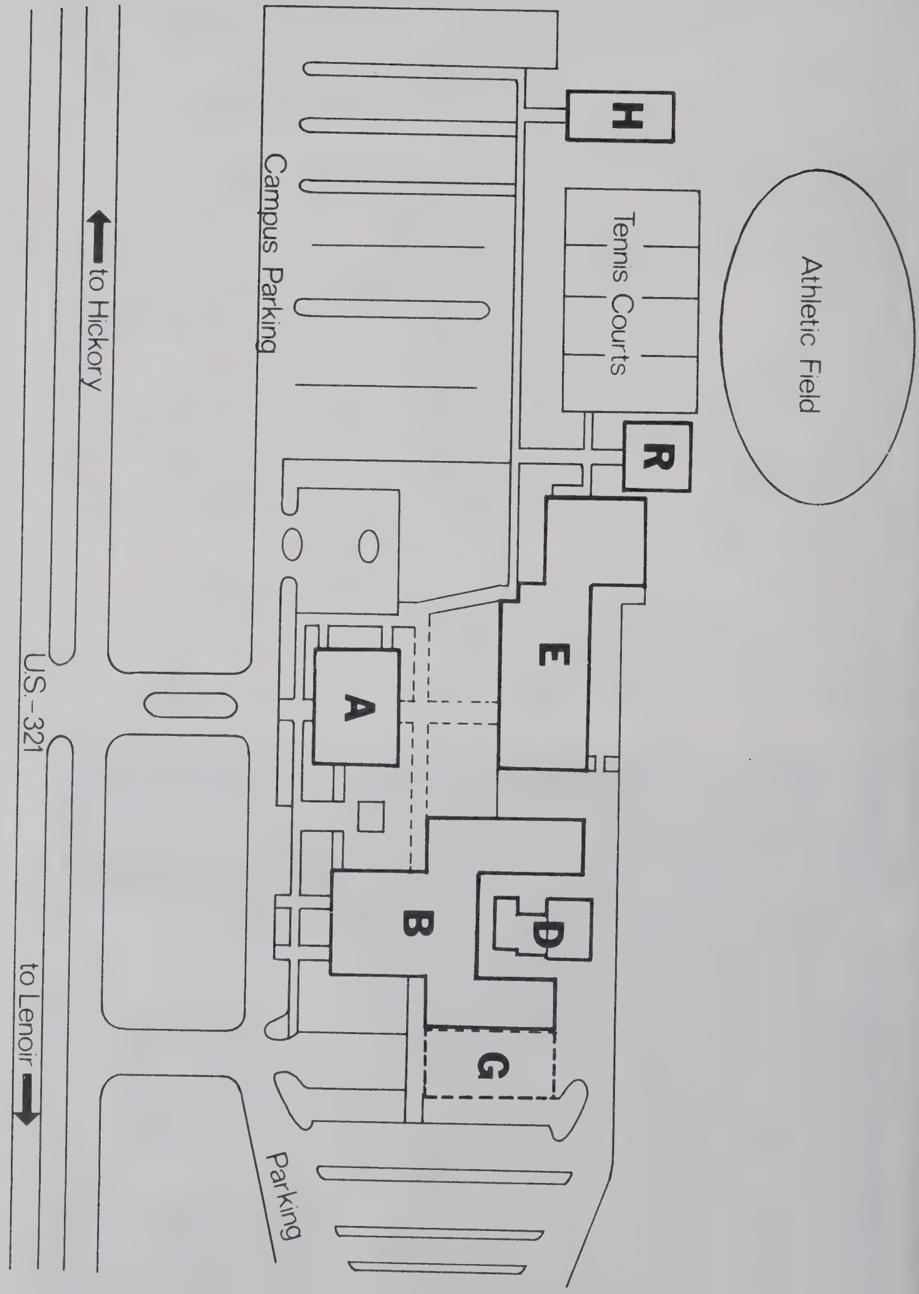
SUMMER QUARTER, 1982-83

June 1, Wednesday	Registration, Boone Campus
June 2, Thursday	Registration, Lenoir Campus
June 6, Monday	Classes Begin
June 6, 7, 8	Late Registration
July 1, Friday	Independence Day Holidays Begin After Last Class
July 7, Thursday	Classes Resume
July 13, Wednesday	Last Day to Drop Course
August 1, Monday	Early Registration for Fall Quarter, Boone
August 3, Wednesday	Early Registration for Fall Quarter, Lenoir
August 15, 16, 17	Exams
August 17, Wednesday	Summer Quarter Ends
August 19, Friday	Graduation

SUMMER MINI-SESSIONS, 1982-83

June 13, Monday - July 1, Friday
July 7, Thursday - July 27, Wednesday
July 28, Thursday - August 17, Wednesday

CAMPUS MAP


H
Athletic Field
Tennis Courts
R
E
A
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Campus Parking
Parking
to Hickory
U.S.-321
to Lenoir

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GENERAL INFORMATION

HISTORY OF THE COLLEGE

The 1963 North Carolina General Assembly passed the Community College Act creating a system of comprehensive community colleges, technical institutes, and industrial education centers in the State under the State Board of Education.

The 1979 General Assembly rewrote the Community College Act and authorized a new board for community colleges, effective January 1, 1981.

In January, 1964, the Caldwell Community College and Technical Institute was tentatively approved by the State Board of Education. On March 28, 1964, the people of Caldwell County approved the college through a bond vote of $600,000 for the purchase of a site and construction of facilities and up to 5 cents tax authorization for operating the college. Final approval by the State Board of Education followed on April 2, 1964.

The first president was selected that fall and began work in November, 1964. A permanent site was selected for the institute in January, 1965. Selection of an architect was made in February, 1965. New facilities were occupied in September, 1967.

On July 1, 1970, Caldwell Technical Institute was authorized by the North Carolina General Assembly through the State Board of Education to offer college transfer courses. .Subsequently, Caldwell Technical Institute changed its name to Caldwell Community College and Technical Institute.

A referendum seeking approval of the issuance of $800,000 in bonds by Caldwell County was proposed and voted upon on December 7, 1971. The local money was to match a federal grant of $799,306 under the Appalachian Region Act. This referendum was passed by more than a 2 to 1 majority. In 1973 the institution received $500,000 of state construction funds from an appropriation by the North Carolina General Assembly. These funds enabled the trustees to increase the size of the college by about 77,000 square feet. The new buildings were occupied during the 1974-75 school year.

In 1979 the Caldwell County Commissioners authorized an expenditure of $600,000 to match a proposed Appalachian Regional Grant of $400,000 to construct additional facilities. The added 19,000 square feet will make a total of 154,000 square feet of building space at the institution.

In September, 1973, Caldwell Community College and Technical Institute, Watauga Division was established to provide limited credit and more extensive noncredit offerings to the citizens of Watauga County in various locations throughout the county. Appalachian State University permits CCC & TI Watauga Division students to use the university's library facilities.

The institution has grown at a steady rate since its beginning in 1964. For the 1981-82 year, the college was funded for 1265 full-time equivalent (FTE) students in one-year diploma and two-year degree programs and 938 FTE in continuing education programs for a total full-time equivalent enrollment of 2203. To teach these students and provide the required support and other services, the institution employs some 130 full-time persons and approximately 545 part-time persons each year.

PURPOSE AND OBJECTIVES

Caldwell Community College and Technical Institute, serving primarily Caldwell and surrounding counties and operating within the legal framework set by the North Carolina General Assembly, opens its doors to any adult desiring to learn. All students are offered the opportunity and are encouraged to develop their intellectual, social, occupational, civic, cultural, and physical potential. The college is committed to providing quality, inexpensive, continuing education opportunities to meet the needs of adults at facilities located within commuting distance.

In keeping with the general purpose of Caldwell Community College and Technical Institute, the board of trustees, the staff, and the faculty have adopted certain specific objectives. These are to:

Provide effective instruction to all who enroll.

Provide the opportunity for individuals to complete elementary or secondary school by offering adult basic education and high school equivalency programs.

Provide a variety of one-year vocational, two-year technical, and two-year college transfer programs that reflect the changing needs of business, industry, and professional and public services.

Provide general interest courses that meet adult education and community service needs.

Provide guidance and counseling services to assist students in developing an understanding of themselves.

Provide cultural programs and educational services for community enrichment.

Provide assistance and information to stimulate interest in education throughout the community.

LOCATION

The Caldwell Community College and Technical Institute is located on a 78-acre tract of land in Hudson, North Carolina. Since the college is on Highway 321, it is accessible to the population centers of Lenoir (5 miles), Granite Falls (5 miles), and Hickory (10 miles).

The Watauga instruction facility and administrative offices are located at Highway 421 W. and 105 By-Pass in Boone, North Carolina.

ACCREDITATION

Caldwell Community College and Technical Institute is regionally accredited by the Southern Association of Colleges and Schools.

Diploma, associate in applied science, and associate in arts or science programs have been approved by the North Carolina Department of Community

Colleges and the State Board of Community Colleges.

The radiologic technology program is accredited by the Council on Allied Health Education and Accreditation of the American Medical Association. The nursing program is approved by the North Carolina State Board of Nursing. The nuclear medicine program is accredited by the Joint Review Committee of Education in Nuclear Medicine Technology of the Council on Allied Health Education and Accreditation.

ADMISSIONS

GENERAL ADMISSIONS REQUIREMENTS

Caldwell Community College and Technical Institute is a co-educational college open to any individual meeting the admission requirements for the particular course or area in which that individual wishes to enroll. These requirements vary with the areas of study offered by the college.

Students wishing to enroll in a curriculum program at Caldwell Community College and Technical Institute should contact the student development office for application forms, interview appointments, and dates for placement testing.

All technical and college transfer programs require high school graduation or the equivalent. Students enrolled in the vocational programs must be 18 years of age or high school graduates.

Applicants to Caldwell Community College and Technical Institute should:

1. Secure application forms and make application for admission.
2. Request that a transcript of past high school and college work be submitted to the student development office.
3. Complete the required placement tests for specific programs.
4. Have an interview with a member of the student development department or a faculty advisor.

PLACEMENT INVENTORIES

English, math, and reading placement inventories are required for all college transfer and occupational degree programs. The reading placement inventory is required for all occupational diploma programs.

Satisfactory placement scores in reading, math, and English are required for admission to radiologic technology, nuclear medicine, nursing, occupational therapy assistant, and recreational leadership programs.

Cognitive Style Mapping is also recommended for all full-time students.

PROVISIONAL STUDENTS

A student applying too late to complete pre-entrance requirements may be permitted to enter the college as a provisional student. Provisional students must complete all requirements within the first quarter of attendance.

SPECIAL CREDIT STUDENTS

Caldwell Community College and Technical Institute recognizes that some adults who are not pursuing a degree or diploma may wish to register for an occasional course. Special credit students may register by completing the proper application forms. A student may remain in this category as a special student until twelve quarter hours of credit are completed or until the student transfers into a particular program. The student must then complete the proper placement testing and submit a school transcript.

FOREIGN STUDENTS

Caldwell Community College and Technical Institute is authorized by the U.S. Department of Naturalization and Immigration to admit foreign students. This permission was granted on July 12, 1966, with authorization number WAS 214-1562.

Foreign students must meet the same admission requirements as all other students. Included with the application should be a transcript from an authorized school or university. If this document is not in English, it should be translated and certified before being sent to CCC & TI. The applicant should also present a statement from a qualified authority indicating sufficient proficiency in English to cope with studies at CCC & TI.

VISITING STUDENTS

Students who are working toward a degree in another institution may register for courses at Caldwell Community College and Technical Institute. The student must complete the application forms and submit a letter from the institution from which that students expects to graduate indicating student status. It is the responsibility of the visiting student to request that transcript(s) of work taken at CCC & TI be sent to the "home" institution.

TRANSFER STUDENTS

Students may be admitted with advanced standing by transfer from technical institutes, colleges, or universities. If admitted, the prospective student's record will be evaluated by the registrar to determine the amount of credit that can be transferred and applied toward the program in which the applicant desires advanced standing. Courses in which a student has made a grade of "D" may be transferred to Caldwell Community College and Technical Institute if the overall average of the courses transferred is 2.0 or better.

POLICY ON ADMISSION OF HIGH SCHOOL STUDENTS

An applicant for admission to a course or courses at Caldwell Community College and Technical Institute who is neither a high school graduate, nor high school dropout, nor eighteen years of age, but who is concurrently registered (or on vacation) as a student in one of the two upper grades of high school, may be admitted, subject to the discretion of the college administration and taking into consideration the constraints of facilities and funds available; provided that such applicant's admission to each course shall require written approval or recommendation of the superintendent or other designated executive or administrative officer having responsibility in or over the high school in which the student is enrolled while attending Caldwell Community College and Technical Institute.

An applicant not attending high school who is between the ages of sixteen and eighteen years and who has special educational needs may be admitted to appropriate courses or programs provided:

(1) That the applicant has left the public schools no less than six calendar months prior to the last day of regular registration of the quarter; and

(2) That the application is supported by a notarized petition of the applicant's parent, legal guardian, or other person or agency having legal custody and control, which petition certifies the place of residence and date of birth of the applicant, the parental or other appropriate legal relationship of the petitioner to the applicant, and the date on which the applicant left the public schools. However, all or any part of the six-month waiting period may be waived by the superintendent of the public schools of the administrative unit in which the applicant resides; and

(3) That such admission will not pre-empt institution facilities and staff to such an extent as to render the institution unable to admit all applicants who have graduated from high school or who are eighteen years of age or older.

SUSPENSION, DISMISSAL, AND READMISSION

Students will be expected to conduct themselves at all times as individuals of prudence and maturity. The rights and feelings of others will be respected. Students shall demonstrate a high regard for school facilities and property and for the personal property of others.

School regulations which serve to control such activities as vehicular traffic and parking, smoking, and other aspects of personal conduct must be observed. Students may be suspended or dismissed for conduct which is considered incompatible with standards of propriety and good judgment.

Readmission of dismissed students at a subsequent session will be at the discretion of the college. Students should refer to the student handbook for details on disciplinary procedures and regulations pertaining to suspension and expulsion.

A student dismissed from the college for any reason can petition the admissions committee to consider his/her readmission after one quarter's absence following dismissal.

ACADEMIC STANDARDS

GRADING SYSTEM

Official grades are issued for each student at the end of each quarter. Students who lack passing averages at mid-quarter should schedule a conference with the instructor and/or their faculty advisor.

Students enrolled in curriculum program courses will be graded by the letter-grade system shown below and assigned a grade point equivalent in quality points for each quarter scheduled.

Numerical Equivalent	Letter Grade	Grade Point Equivalent
93-100	A — Excellent	4 quality points each quarter hour
85-92	B — Good	3 quality points each quarter hour
77-84	C — Average	2 quality points each quarter hour
70-76	D — Below Average	1 quality point each quarter hour
Below 70	F — Unsatisfactory	0 quality points each quarter hour

I — Indicates failure to complete certain course requirements because of extenuating circumstances.
W — Student withdrew from the course.
Y — Indicates no grade or credit given.
P — Pass — No quality points given.

GRADES OF "I" (INCOMPLETE)

An "I" grade in a course indicates the student has not met (for whatever reasons) the minimum objectives of the course set up by the instructor and/or the departments involved; however, the student is making satisfactory progress at the time the grade is given. This "I" may be removed in one of two ways:

1. Re-registering for the course and completing all requirements for the course;
2. Completing the requirements for the course as stipulated in a written agreement drawn by the faculty member involved and signed by the student and faculty member. The agreement will specify the work to be completed and the period of time within which a student may complete the work and, in no case, will that period of time exceed one year. Copies of this agreement should be sent to the student development office and the student's advisor. The student shall be given a copy and the faculty member should retain a copy for his/her files.

Veterans should check with the veterans coordinator in the student development office upon receiving an "I" grade and before attempting to re-register for the course.

WITHDRAWING FROM COURSES AND/OR SCHOOL

Students who withdraw from a class or from the college should first consult with their academic advisor and then contact the registrar in the student development office. Failure to make these contacts and to withdraw officially from a class or from the college prevents college personnel from offering assistance to the student and increases the chance of errors in recording of official grades and records.

A student may withdraw from a course and receive a grade of "W" up until fifty percent of the class contact hours have elapsed. The grade of "W" will have no bearing on the grade point average. After the midpoint, or after fifty percent of the class contact hours have elapsed, a grade of "W" may not be given on a student-initiated drop petition. However, an instructor may initiate a drop petition after the midpoint and assign a grade of "W".

Veterans should check with the veterans coordinator in the student development office for specific VA regulations concerning withdrawals and class repeats.

COURSES REPEATED FOR CREDIT

When a course is repeated, the last grade is recorded as the final grade for the course, and only the last hours attempted are counted in determining the student's grade point average.

AUDITING

A student who audits a course pays the regular registration and tuition fees. Auditors do not take tests, examinations, or receive grades or credit and cannot later change the "audit" to credit.

Any student who wishes to audit a physical education course must have the department chairman's approval.

CREDIT BY EXAMINATION

Students enrolled at Caldwell Community College and Technical Institute who are qualified to accelerate their studies because of their demonstrated abilities may receive credit by examination for some of the curriculum courses. The student wishing to receive credit by examination must petition the department head under whom the course is offered. If the department head deems the course suitable for credit by examination, the student may receive permission to take the examination developed by the department head and appropriate instructors. The department head will decide the appropriate score demonstrating competence in the course. Regular course fees must be paid by the student before taking the examination.

If the examination is passed, the student will earn credit hours toward graduation but no grade points. Credit by examination (CE) will be indicated on the student's transcript. If the examination is not passed, no notation will be made on the transcript.

Credit by examination may not be used to repeat a course nor may the student repeat the examination. No more than one-third of the hours required for a degree or diploma may be earned by examination.

INDIVIDUAL STUDY (IDS)

Eligible students may apply to take a course on an individual study basis when it is listed in the school catalog but is not being offered during the designated quarter. Students may apply at any time through the student development office. Permission must be obtained from the department chairman responsible for the course.

INDEPENDENT STUDY (IST)

Eligible students may wish to pursue the study of a particular subject which is not listed in the school catalog. Under this program, the student designs and pursues a project with an instructor serving as consultant. For information on independent study, the student should consult with the student development office. Permission must be obtained from the chairman of the department in which the study will be done.

CLASS DESIGNATION

Students completing 45 quarter hours of course work will be listed as sophomores.

FACULTY ADVISOR SYSTEM

The faculty advisor program is a cooperative effort of the faculty and the student development office. At the time of enrollment, each student is assigned an advisor who will assist that student in planning programs and selecting courses so appropriate progress will be realized. Counselors serve as advisors to special credit students. Advisor/advisee conferences are held at least once each quarter. Specific dates for these conferences, along with additional instructions, are listed in the current student handbook.

SCHEDULE CHANGES

Change of student schedule after registration has been completed will be made only with permission of the registrar, advisor, and instructor.

ACADEMIC PROBATION

Caldwell Community College and Technical Institute considers the following accumulative grade point average for total hours attempted as evidence of satisfactory academic progress at the college:

Quarter Hours Attempted	Grade Points Awarded
12	1.00
24	1.25
36	1.50
48	1.75
Graduation*	2.00

All students failing to maintain the average above will be placed on academic probation for one quarter. The student development office will notify students by letter of probationary status and will advise those students to make an appointment with their academic advisor. The advisor will explore various options with the student, including the following:

a. reduction of course load
b. referral to the student development office for individual counseling
c. tutoring assistance
d. attending seminars on effective study techniques
e. guidance into another curriculum or program
f. enrolling in additional preparatory courses
g. reduction of nonscholastic activities

Any curricular student on probation will remain on probation until that student's cumulative GPA reaches the standards of progress listed above.

Students receiving VA benefits should check with the veterans coordinator for VA regulations concerning probation, progress, and benefits.

ADVISED STATUS

Any student, following the completion of one quarter of study at the college level, who fails to meet the grade point average listed below will be considered on "advised status." This is not academic probation and does not involve a student's accumulative grade point average. It is a status based on a student's grade point average for the preceding quarter. It is hoped that appropriate action taken by the student and that student's academic advisor will prevent the student's being placed on academic probation in the future.

Quarter Hours Attempted to Date	Grade Point Average for the Preceding Quarter
36 and under	1.5
37-72	1.75
73 and over	2.00

Any student on advised status will be notified by letter of such status by the student development office. The letter will advise the student to make an appointment with the academic advisor so that the following options may be explored:

a. reduction of course load
b. referral to the student development office for individual counseling
c. tutoring assistance
d. attending seminars on effective study techniques
e. guidance into another curriculum or program
f. reduction of nonscholastic activities

COURSE LOAD

Students enrolled for 12 or more credit hours are classified as full-time students. Those taking less are classified as part-time. Normal course load will vary from one curriculum to another and should be carefully planned with the advisors. Students may enroll for a maximum load depending upon their capabilities as determined by their advisors. A normal course load is outlined by departments in this catalog.

STUDENT TUTORIAL ASSISTANCE

Special assistance is available for students in all areas of study at the college. Tutors may be assigned to students at no cost to the student. To request a tutor, students should contact the course instructor.

Instructors are also available for conferences at regularly scheduled office hours or by appointment. It is the responsibility of the student to seek extra help when needed.

DEGREE/DIPLOMA REQUIREMENTS

All students should refer to the college catalog or to the program check sheets for information about the courses required for graduation in the various areas of study. By conferring with the advisors when questions arise and by following the check sheets, students will tend to be more accurate in the proper selection of courses. Check sheets are recommended for all students and are required for all veterans.

REQUIREMENTS FOR GRADUATION

A student is eligible for graduation when the following requirements have been completed:

1. The student must file an application for a degree/diploma during the first two weeks of the last quarter the student is in attendance.
2. All the requirements for a diploma/degree in a particular program must be satisfactorily completed.
3. The student must have a quality point average of 2.0.
4. The student must take care of all financial obligations to Caldwell Community College and Technical Institute.

Graduation exercises will be held at the end of the summer quarter. All candidates for graduation are expected to be in attendance.

RESIDENCY REQUIREMENTS FOR GRADUATION

Students transferring from other schools to Caldwell Community College and Technical Institute must complete twenty-five percent of their course requirements at CCC & TI in order to qualify for graduation.

HONORS

Dean's List—At the end of each quarter, an academic honor list will be published of all students who complete 10 or more credit hours and who have a quality point average of 3.25 or above.

Graduation With Honors—A graduating student who has earned an overall quality point average of 3.50 or better during studies at Caldwell Community College and Technical Institute will receive the diploma or degree "with honors."

RESTRICTIONS ON CLASS ADMISSIONS

No person may attend classes unless the registration procedure has been completed.

ATTENDANCE POLICY

At the request of the faculty senate the institutional attendance policy has been modified. The new statement follows:

Students are expected to attend every class meeting. However, it is recognized that occasional absences may be necessary. A student is responsible for any work missed. At a minimum, a student will be dropped from class membership after the fifth consecutive absence. Beyond this, each department will formulate its own attendance policies in accordance with the varying requirements of the different curriculums. These requirements will be published in the student handbook and/or announced at the beginning of each course.

TRANSCRIPTS OF CREDIT

Transcripts of credit will be supplied to all students and former students requesting them, subject to certain conditions. Individuals must have made satisfactory financial arrangements to care for all amounts due the college.

CONFIDENTIALITY OF STUDENT RECORDS

Caldwell Community College and Technical Institute supports the Family Educational Rights and Privacy Act of 1974 which outlines the rights and privacies afforded each student. Information on access to student records is found in the student handbook.

CATALOG REQUIREMENTS

Candidates for the diploma or degree must meet the requirements as outlined in the catalog for the year of their first enrollment or for any subsequent bulletin under which work is taken, but in all cases must complete work for their diploma or degree within 10 years from the date of the catalog selected.

TUITION AND FEES

POLICIES REGARDING STUDENT EXPENSES

All tuition and required fees are due and payable at the time of the student's registration. The controller or a delegated representative shall have the authority to permit deferred payments of tuition and fees in situations where it is determined that a student is undergoing emergency financial conditions. The student must first see the financial aid officer who will make recommendations to the controller.

All checks and money orders must be made payable to Caldwell Community College and Technical Institute. No student will be allowed to graduate, to receive grades or transcripts, or to register for a new quarter if said student has an unpaid balance due from any previous quarter. Exceptions will be made only if such an outstanding balance has been guaranteed in writing by a financially responsible person or organization.

In the event a student writes a check with insufficient funds to the college, the college will no longer accept checks from that individual.

TUITION

Caldwell Community College and Technical Institute offers an educational opportunity at minimum cost to the student. Tuition fees are set by the State Board of Community Colleges and are subject to change without notice. Current basic fees to be paid by students upon enrollment are as follows:

In-state Students	
12credit hours or more (full-time)	$39.00
Part-time students per quarter hour	3.25
Out-of-state students	
12 credit hours or more (full-time)	$198.00
Part-time students per quarter hour	16.50
Late Registration Fee	5.00

Tuition for Students Enrolled in More Than One Institution

Where a student desires to enroll for the same quarter at two or more institutions of the community college system, the total amount of tuition shall not exceed the maximum tuition. When enrolled at the second institution, the student must produce his/her validated registration receipt in order to waive any payment of tuition. Activity fees will be charged. It is the student's responsibility to see that transcripts are sent to the "home" institution at the completion of the quarter.

Tuition for Older Citizens

North Carolina residents sixty-five years of age or older shall be exempt from the payment of curriculum tuition and activity fees.

Tuition for Inmates

Prison or correctional units inmates will be exempt from the payment of tuition or activity fees.

OTHER CHARGES

Student Activity Fees

Curriculum students will be charged $1 per course activity fee up to a maximum of $5 per quarter. This fee is not refundable unless there is an institutional error.

Accident Insurance

All CCC & TI students and employees must sign a waiver prepared by the college which states that the student or employee will assume personal responsibility for all medical costs incurred in case of accident or emergency while attending school or at work, including ambulance and emergency room costs. After signing the waiver, the student or employee is given the opportunity to enroll in a low-cost accident insurance program available through the college.

The policy offered will cover enrollees while traveling directly to the college; during hours of college operation; while traveling directly from the college to home; and while participating in college-sponsored activities.

Insurance coverage is from September 1 through August 31 with no refunds of unused coverage. Students who begin classes in the winter quarter or spring quarter must still pay the full amount. The cost of the policy is $5 per year.

Malpractice Insurance

Special malpractice insurance is required for nursing, radiology, nuclear medicine, occupational therapy assistant, and biomedical electronics technology students. Coverage charges may be prorated. This fee is not refundable.

Books and Supplies

Students are required to buy the necessary textbooks and supplies prescribed in the curriculum area they are entering. These vary according to different courses taken by the students. An average expenditure of $75 can be expected by the new fall quarter students for books. Normal school supplies are sold during the regular bookstore hours.

Graduation Fees

A graduation fee of $6 for a diploma/degree is payable at the beginning of the quarter in which the student completes his/her program. This fee is not refundable.

Late Registration Fee

A late registration fee of $5 will be assessed any student registering after scheduled registration days. The late registration fee is not refundable unless there is an institution error.

TUITION REFUND POLICY

Tuition refunds for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw from the institution for unavoidable reasons. In such cases, two-thirds of the student's tuition may be refunded if the student withdraws within ten calendar days from the first day of classes as published in the school calendar. Tuition refunds will not be considered for tuition of $5 or less unless a course or curriculum fails to materialize. In such cases, all the student's tuition shall be refunded. Refunds may be calculated to the nearest whole dollar.

If a student is compelled to withdraw from the college during the first ten calendar days for reasons which are, in the judgment of the college, unavoidable, the student may be allowed full credit for the unrefunded tuition and fees if application for readmission is made during any of the next four calendar quarters and a petition in writing is made to be allowed such credit.

FEES NOT REFUNDABLE (Unless Institutional Error):
Insurance payment
Activity fee
Special course fee
Graduation fee
Ring deposit
Invitation and calling card cost

Only the director of counseling or the registrar will be authorized to recommend a tuition refund. Student appeals on the refund issue will be made to the vice president of administration. In all cases, the vice president of administration will make the final decision as to whether a refund is due and, if so, the amount due.

ACCOUNTS

No transcripts, certificates, diplomas, or degrees will be issued, and students will not be permitted to complete registration until accounts are satisfactory to the business office, dean of students, financial aid office, and the learning resource center.

RESIDENCE STATUS FOR TUITION PAYMENT

General

The tuition charge for legal residents of North Carolina is less than for nonresidents. To qualify for in-state tuition, a legal resident must have maintained a domicile (legal residence) in North Carolina for at least the twelve months preceding the date of first enrollment or re-enrollment in an institution of higher education in this state. Student status in an institution of higher education in this state shall not constitute eligibility for residence to qualify said student for in-state tuition.

The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification.

Minors

A minor is any person who has not reached the age of eighteen years. The legal residence of a person under eighteen years of age at the time of first enrollment is an institution of higher education in this state is that of the parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the legal residence of the father will control unless custody of the minor has been awarded by court to the mother or to a legal guardian other than a parent. No claim of residence in North Carolina based upon residence of a guardian in North Carolina will be considered if either parent is living unless the action of the court appointing the guardian antedates the student's first enrollment in a North Carolina institution of higher education by at least twelve months.

Adults

An adult is any person who has reached the age of eighteen years. Persons eighteen or more years of age at the time of first enrollment in an institution of higher education are responsible for establishing their own domicile. Persons reaching the age of eighteen, whose parents are and have been domiciled in North Carolina for at least the preceding twelve months, retain North Carolina residence for tuition payment purposes until domicile in North Carolina is abandoned. If North Carolina residence is abandoned by an adult, maintenance of North Carolina domicile for twelve months as a non-student is required to regain in-state status for tuition payment purposes.

Married Students

The legal residence of either husband or wife may be used for residence purposes to the advantage of each member of the family. Married couples should check with the residence classification officer at the college.

Military Personnel

No person shall lose in-state resident status by serving in the Armed Forces outside of the State of North Carolina. A member of the Armed Forces, the spouse, and the children may obtain in-state residence status after maintaining their domicile in North Carolina for at least the twelve months preceding enrollment or re-enrollment in an institution of higher education in this state.

Aliens

Aliens lawfully admitted to the United States for permanent residence may establish North Carolina residence in the same manner as any other nonresident.

Property and Taxes

Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate.

Change of Status

The residence status of any student is determined as of the time of the student's first enrollment in an institution of higher education in North Carolina except:

(a) In the case of a nonresident student at the time of first enrollment who has subsequently maintained domicile as a non-resident for at least twelve consecutive months and

(b) In the case of a resident who abandons the legal residence in North Carolina.

In either case, the appropriate tuition rate will become effective at the beginning of the first subsequent term enrolled.

Responsibility of Students

Any student or prospective student in doubt concerning residence status must bear the responsibility for securing a ruling by stating his/her case in writing to the registrar. The student who, due to subsequent events, becomes eligible for a change in classification, whether from out-of-state or the reverse, has the responsibility of immediately informing the dean of student development of the circumstances in writing. Failure to give complete and correct information regarding residence constitutes grounds for disciplinary action.

SPECIAL PROGRAMS

PRIME TIME: A PERSONAL GROWTH PROGRAM FOR WOMEN*

When there is sufficient interest, the college will offer a program known as PRIME TIME during fall quarter for the mature woman who wishes to return to school for self-improvement or for career training.

Three general courses will be scheduled between the hours of 10:00 a.m. and 2:00 p.m. on Mondays, Wednesdays, and Fridays. One of the courses will deal with life planning skills.

All students will remain together for three courses which cover an eleven-week period and end near the Thanksgiving holidays.

Prime Time is being offered as a one quarter introduction to the opportunities at the college and is scheduled so as to allow the woman who has school-aged children to come to class after the public school day begins and return home before it ends. Attending class only three days per week instead of five provides the new student a gradual entry into a new time schedule.

Persons who complete the Prime Time block of courses will receive eight hours of college credit which can be applied to many of the technical and college transfer curricula at the college.

After the program is completed, the student who wishes to return the following quarter has the option of choosing one of the regular career programs or of selecting random courses which might interest her.

Students who enroll must be high school graduates or hold the high school equivalency diploma. A minimum enrollment of twelve students will be necessary to ensure that the program will be held.

*Although Prime Time is especially for women, men will be welcomed in the program.

VETERANS

Curriculum courses offered by the institution are approved for veterans benefits. Any veteran or dependent who is eligible under provisions of Chapters 34 and 35, Title 38 and Public Law 894 and who has completed the admissions requirements for the school and has a transcript(s) of previous work on file can apply for educational assistance. Such application can be made in the office of the veterans coordinator and must include a copy of the veteran's discharge (DD-214). At registration, both veterans and dependents under Chapters 34, 35 are responsible directly to the school for payment of all costs. ALL WHO RECEIVE VETERANS FINANCIAL ASSISTANCE are further responsible for becoming familiar with specific VA regulations concerning monthly attendance reports, satisfactory conduct and academic progress requirements, and the use of the curriculum check sheet to ensure appropriate selection of courses. This information is available from the coordinator.

Children of disabled or deceased veterans may be eligible to receive financial assistance for tuition and fees. For information regarding eligibility, students should contact the local veterans service officer.

STANDARDS OF PROGRESS, ATTENDANCE, AND CONDUCT FOR VETERANS AND OTHER ELIGIBLE PERSONS CERTIFIED TO THE VETERANS ADMINISTRATION FOR EDUCATIONAL PAYMENTS UNDER PUBLIC LAW 93-508.

(Adapted for the catalog; copies of original document are available from veterans coordinator)

1. Determination of academic progress: All students enrolled in a credit program will be graded by the following letter-grade system and assigned a grade point equivalent.

Numerical Equivalent	**Letter Grade**	**Grade Point Average**
93-100	A-Excellent	4.00
85-92	B-Good	3.00
77-84	C-Average	2.00
70-76	D-Below Average	1.00
Below 70	F-Unsatisfactory	0

I—Indicates failure to complete certain course requirements

W—Student withdrew from course

A veteran may not a second time be certified for pay purposes for any course on which he/she has made an "I" grade. (Also, should the "I" not be completed in a given time—coordinator will have details—money received for the course during the quarter will be considered as overpayment until such time as credit grade is received. Coordinator must be notified of the grade change so that appropriate forms can be sent to VA.) Repeat of the "F" grade will influence the overall GPA for veterans since both the original grade and the repeat must be counted.

The following accumulated grade point average for total hours attempted is considered evidence of satisfactory academic progress:

Quarter Hours Attempted to Date	Grade Points Awarded
12	1.00
24	1.25
36	1.50
48	1.75
Graduation*	2.00

*Graduation will be determined (1) when the veteran completes all requirements and is in fact eligible for the diploma/degree with 2.00 GPA or better or (2) when the veteran completes the number of hours for his/her program and cannot graduate because the GPA is below 2.00. Should this occur, the veteran will be terminated for benefits (he/she may remain in school) until such time as the VA sees fit to approve recertification.

Each veteran's grades are checked each quarter. Any who fail to maintain the above averages will be placed on academic probation for the next quarter of attendance and will be notified by mail of the probation. Should a notice not reach a veteran, this in no way cancels the probation period. Once grades are out, each student should be aware of his/her academic progress or lack of it.

Veterans who make an "I" grade on 100% of their courses in a given quarter or withdraw from all courses will be considered in academic difficulty and will be placed on probation for the next quarter of attendance.

Veterans with satisfactory progress who show a marked decline in academic achievement in a following quarter will be placed on probation for the next quarter without regard to the overall GPA. The higher average of previous work will not be computed with the low average—the quarter of marked decline will stand alone.

At the end of the one quarter probation period, all who then meet the satisfactory progress test will be removed from probation. Those who do not meet the requirements will be terminated, for pay purposes, to the regional VA office; he/she may be re-instated for benefits (1) after appropriate academic progress is made and/or (2) after VA counseling.

Should academic progress be unsatisfactory at the time a veteran requests a "change of program," benefits will be interrupted until VA counseling can be scheduled and approval reaches the school.

The official copy of quarter grades for veterans and non-veterans is kept in the registrar's office; a second copy is mailed to each student and a third copy is provided to the veterans coordinator for the purpose of determining progress.

Neither probation nor termination of educational benefits affects the veteran's eligibility to continue enrollment at CCC & TI.

2. Attendance: The school operates within the framework of the NC Department of Community Colleges' attendance policy; therefore, it makes no provision for free "cuts." Each instructor decides when the excessive absence point has been reached and provides the registrar with the names of those students involved. Instructors can initiate withdrawal forms for any student who, in their determination, has jeopardized his/her chance for passing the course because of poor attendance.

All veterans, including those working on the high school equivalency, are required to file instructor-signed monthly attendance sheets showing absences. The sheet must be filed with the coordinator no later than the 10th calendar day of the following month.

All absences of veterans enrolled in either vocational or high school equivalency programs are reported to the VA. (''Absences'' include both days missed for personal reasons as well as those days missed because the institution is closed for quarter breaks, etc. The coordinator has a list of the non-operating days that are considered as absences.)

Veterans will be terminated to the regional VA office by the coordinator for the following attendance-related reasons: (1) Excessive absences resulting in instructor initiated withdrawal, (2) veteran's official withdrawal, (3) registrar's report that veteran is no longer attending or (4) veteran's failure to provide the attendance sheet by date stated above.

Veterans who are terminated for absences during any part of the term may not be re-instated for pay purposes until the beginning of the next term unless there are extenuating circumstances beyond the control of the veteran.

Dropping classes after the quarter begins will often result in either a revision of certification or termination of benefits. Any change in hours MUST be reported to both the registrar and the coordinator.

3. Determination of appropriate courses: Only courses listed in the catalog under the specific curriculum can be certified to the VA. Each veteran must file a check sheet with the coordinator who lists the quarter the course is taken and later adds the grade received. All veterans must check with the coordinator at each registration so that certifications, as well as the check sheets, can be updated.
4. Conduct: The same conduct regulations apply to all students. All behavior which is prohibited by federal, state, and local laws is prohibited on campus. Violations could result in dismissal of any student from school and in termination of benefits for veterans. Re-instatement of benefits would depend upon (1) re-admittance of persons to the school, and (2) recommendation of the VA after counseling.
5. Advancement lab requirements: When a veteran enrolls in the high school equivalency program, he/she is informed (1) that the coordinator must have on file a transcript of previous work prior to certification, (2) that a weekly progress review will be made and (3) that, based upon placement inventories, grade completed in public school, time elapsed since last school, etc., he/she should complete the work in a certain period of time. At the first sign of unsatisfactory progress, the veteran is scheduled for a conference with the lab advisor. Should unsatisfactory progress continue after several such conferences, the advisor will notify the coordinator who will terminate benefits until such time as a sufficient percent of acceptable work is completed to put the veteran back on the time schedule. The probation period is considered to be the time between the first unsatisfactory progress conference and the time the coordinator is notified.

Unsatisfactory attendance is determined by the lab advisor. Written notice, along with last date of attendance, is sent to the coordinator who terminates the veteran to the VA.

All veterans attending the advancement lab are advised to report for the hours scheduled on their certifcations or run the risk of being counted absent even though they may be making up time at other hours. The coordinator can supply additional information on this matter.

CCC & TI is currently approved for a maximum of 700 hours for the completion of the high school diploma. This does not guarantee that all persons will be allowed the full 700 hours. What it does mean is that each will have the length of time needed up to that number of hours.

Official institutional credit class schedules are published four times per year for the degree/diploma programs. The advancement lab schedule for the high school equivalency program remains constant: the lab is open Monday through Thursday, except for school holiday, from 8:00 a.m.-9:00 p.m. and on Friday from 8:00 a.m.-5:00 p.m. Persons wishing to enroll in the equivalency program may do so at any time.

NOTE: Veterans need to be aware that VA regulations are constantly being revised and expanded. The office of the veterans coordinator will attempt to keep all information current and will have updated material available for distribution.

FINANCIAL AID FOR STUDENTS

GENERAL INFORMATION

Caldwell Community College and Technical Institute encourages prospective students who desire to enroll but face difficult financial problems to apply for assistance through the financial aid officer. Financial assistance for educational costs may be available in the form of scholarships, grants, loans, and work programs. Within the limited funds available for these purposes, every effort is made by the institution to help students who need monetary assistance.

Financial need is determined through analysis of a Family Financial Statement of the American College Testing Service prepared by the student and parents or guardian. Analysis of the family's financial situation indicates the family's ability to contribute toward educational expenses. Most financial aid is based on need rather than scholastic record. Financial need is the difference in the total educational expenses and what the family can afford to contribute.

There are three types of student financial aid: gift assistance, student loans, and work. Gift assistance includes grants and scholarships—awards that do not have to be repaid. Loans and work are self-help. Loans are usually paid back after enrollment is terminated. Work enables students to pay part of their expenses through their own earnings.

APPLICATION PROCEDURE

Students who are entering Caldwell Community College and Technical Institute for the first time and are in need of financial aid are requested to follow this pattern of application procedure:

1. After application for admission has been initiated (see ''Admissions''), write to the financial aid officer and outline needs for financial aid. Instructions for applying will be sent to the applicant. Whenever possible, the student should request the application in person. It is to the student's advantage to apply as early as possible for financial assistance.
2. The student who desires to apply for financial assistance must file a Family Financial Statement from the American College Testing Service and must apply for a Pell Grant. These forms are available from the financial aid officer.
3. Report for a personal interview when designated.
4. After determination of the scholarship, loan, grant, or work-study award, the recipient will then be notified by letter.

TYPES OF AID AVAILABLE

Applicants may apply for a scholarship, grant, loan, work-study, or any combination of these. The total combined sum of these must not exceed total need.

In the event that a student receiving aid withdraws from the institution, the student will be responsible for repayment of a prorated amount of any portion of payments which were extended to that student for living expenses and which would no longer be attributed to meeting expenses related to attendance.

The student has the obligation to maintain the ''academic standards of progress'' as defined by this institution. Failure to maintain academic progress will result in the loss of eligibility for financial aid. Eligibility for aid may be regained by reestablishing academic progress. These regulations are especially applicable to recipients of financial aid from federally sponsored programs.

I. FEDERALLY SPONSORED PROGRAMS

Pell Grant

The Pell Grant program is designed to provide financial assistance to those who need it to attend post-high school educational institutions. The amount of the Pell Grant is determined on the basis of the student's and his/her family's financial resources. To be eligible for this program, a student must be older than the compulsory age of secondary school attendance and must not already have a baccalaureate degree.

The Pell Grant Award is a grant and, unlike a loan, does not have to be repaid. Every student who is applying for financial aid at Caldwell Community College and Technical Institute must apply for the Pell Grant. Applications may be obtained from high schools or from the office of financial aid at this institution.

National Direct Student Loan Program

This is a federal loan through which students may borrow funds to complete their education if they are enrolled in a vocational program or if they have completed less than two years of a program leading to a bachelor's degree. Repayment begins six months after the student graduates or leaves school for other reasons. The loan recipient may be allowed up to ten years to pay back the loan.

During the repayment period five percent interest will be charged on the unpaid balance of the loan principal. No payments are required for up to three years while a person serves in the Armed Forces, Peace Corps, or VISTA.

Supplemental Educational Opportunity Grant (SEOG) Program

This program of direct grants of financial aid is for students of exceptional financial need who without the grant would be unable to continue their education.

Guaranteed Student Loan Program

This program enables the student to borrow directly from a bank, credit union, savings and loan association, or other participating lender who is willing to make the educational loan. The loan is guaranteed by a state or private nonprofit agency or insured by the federal government.

To apply for the federal interest benefits, students must submit to the lender a recommendation from their school as to the amount they need to meet educational expenses. If they qualify for these benefits the federal government will pay the interest until repayment of the principal must begin. Payments begin six months after the student graduates or leaves school. Up to ten years may be allowed to complete repayment. A person does not have to make payments for up to three years while serving in the Armed Forces, Peace Corps, or VISTA, or for any time the person returns to full-time study.

College Work-Study Program

Caldwell Community College and Technical Institute participates in the college work-study program which provides on-campus work opportunity for students needing financial assistance to attend school. Work is available for students to assist in the library, faculty and administrative offices, laboratories, shops, and building maintenance. Students working under this program are paid in cash monthly for the work performed. In arranging a job and determining how many hours a week a student may work under this program, the financial aid officer will take into account the student's (1) need for financial assistance; (2) class schedule; and (3) health and academic progress.

II. STATE SUPPORTED PROGRAMS

North Carolina State Student Incentive Grant

Legal residents of North Carolina who are enrolled full time and maintaining academic progress may apply for the NCSSIG. Students must demonstrate "substantial financial need."

The NCSSIG program is administered in North Carolina by the College Foundation, Inc. Application procedures include the filing of a needs analysis system, either the Financial Aid Form of the College Scholarship Service or the Family Financial Statement of the American College Testing Service. Details of the application process are available from high school guidance counselors and from the college financial aid officer.

North Carolina Prospective Teacher Scholarship Loan

This scholarship provides financial assistance toward completing programs of study in preparation for teaching. These scholarships are available to North Carolina residents of high scholastic ability and teaching aptitude.

Scholarships are to be repaid by teaching in the public schools of North Carolina for a period of three, four or five years, according to the amount of the scholarship received, or in cash at five percent interest.

Applications which are available in Janaury of each year, may be obtained either from the high school guidance counselor or from the financial aid officer at Caldwell Community College and Technical Institute.

Scholarship-Loan Fund for Prospective Teachers of the Mentally Retarded

This scholarship-loan is awarded to college students desiring to teach the mentally retarded. The recipient of the loan receives an amount determined by the State Department of Public Instruction per academic year if the student is enrolled full-time in an accredited college or university of North Carolina and is a resident of North Carolina. After the student's graduation, the interest on the unpaid balance shall be paid at the rate of four percent per annum, beginning September 1 following the graduation date. Applications should be submitted to the State Superintendent of Public Instruction in Raleigh on forms supplied by that office. The recipient will be obligated to teach in the North Carolina public schools or in a public resident institution for mentally retarded children for one year for each year he/she received aid. Applications may be obtained either from high school guidance counselors or from the financial aid officer at Caldwell Community College and Technical Institute.

North Carolina Department of Human Resources Loan

This loan, in the amount of $1500, is available to students in the associate degree of nursing program. Repayment may be made by service. A needs analysis is necessary. Application should be made in January directly to the Department of Human Resources, Raleigh, NC. Further information is available from the college financial aid officer.

III. LOCALLY SUPPORTED PROGRAMS

The institution currently offers several scholarships and loan programs. The sources of these scholarships (clubs, individuals, industries, businesses, foundations, etc.) determine what critiera are to be used in awarding them.

Scholarships and loans available as of the printing of this publication are:

Dr. Caroline McNairy Scholarship Fund

This memorial scholarship fund was established in 1969 to be awarded to deserving practical nursing students, radiologic technology students, and medical executive secretarial students.

Alpha Delta Kappa Memorial Scholarship

This academic scholarship was established by the Alpha Delta Kappa Sorority. The recipients are to be pre-teaching students who have completed at least 45 credit hours while maintaining an overall average of at least 3.0. Scholarship, leadership, and maturity will be considered. The award is made in the fall of the year. Applications are available from the financial aid officer.

Northwestern Bank Scholarship

Established in 1970, this is a perpetual fund given by the local directors of Northwestern Bank whose personal contributions are matched by the bank.

C.W. Porter Scholarship

This memorial scholarship was established in 1971 by the friends of the late C.W. "Soup" Porter. It has initial contributions from 27 individuals and businesses totaling over $5,000.00. Contributions to this fund are accepted at any time.

Rotary Club Nursing Scholarship/Loan

The Lenoir Rotary Club has designated that recipients of this fund be enrolled in the associate degree of nursing program. The recipient may renew for the second year of the program. Repayment may be made in cash or by working as a nurse in Caldwell County.

Blue Ridge Electric Membership Corporation Scholarship

This fund was established in September, 1973 to assist in meeting the educational needs of students.

Broyhill Foundation Scholarship

The Broyhill Foundation contributes $1,000.00 each year to maintain a scholarship fund to be used to aid students in continuing their education.

M.L. DeVane Scholarship

The Ebony Kinship Club of CCC & TI established this fund in 1975 to aid a student enrolling full-time at this institution. It was further stipulated that the recipient have completed 45 credit hours while maintaining an overall average of 2.5 or higher.

Granite Savings and Loan Association Scholarship

The board of directors of the Association voted in April, 1974 to establish this scholarship fund. An award is to be made to a graduate of South Caldwell High School. The student selected must be enrolled or accepted for enrollment in either a vocational or technical program.

Caldwell Medical Society Loan Fund

In the spring of 1974, the Caldwell Medical Society established a loan fund which would be available to students in the health related programs at Caldwell Community College and Technical Institute. The amount borrowed by the student would depend on financial need. The student must repay the loan at a low interest rate. Payments would begin after graduation or upon withdrawal from school.

Caldwell Medical Society Auxiliary Scholarship

Established in 1975, this scholarship has been designated by the Caldwell Medical Society Auxiliary to be used to aid a student enrolled in nursing training who would otherwise be unable to attend school.

Altrusa Club Scholarship

This fund was established by the Altrusa Club of Caldwell County in 1975 to aid students over 25 years of age who are residents of Caldwell County and who are returning to school to pursue career training.

Rufus C. Gwyn Memorial Scholarship Fund

Each year the faculty of the college awards a scholarship to a student who is graduating from CCC & TI and whose intentions are to further his/her education. The scholarship is paid to the institution where the student is enrolled. Nominations may be made by faculty, staff, community, and students.

Those making nominations and the committee selecting the recipient of the scholarship will consider:

1. integrity, the nominee's wisdom, concern for others, and humility
2. desire to continue education
3. need
4. capability to succeed in the area in which the student is to enroll.

North Carolina Electric Membership Corporation Scholarship

The N.C.E.M.C. donated funds in 1977 to establish this scholarship to assist deserving students.

Emory C. McCall Scholarship

This memorial scholarship was established as a perpetual fund in 1976 by the friends of the late Emory C. McCall. It has initial contributions from over 85 individuals and businesses totaling over $10,000.

Carl Prestwood Scholarship

The family and friends of the late Carl Prestwood established this memorial fund in 1976 to be used as scholarships for deserving students. Initial contributions totaled approximately $2500.

Marian Alma Coffey Memorial Scholarship

The family and friends of the late "Mac" Coffey, who was a student at CCC & TI in recreational leadership, established this memorial scholarship to be used for second-year students enrolled in the recreational leadership program.

Carrie Peters Memorial Scholarship

This fund was established in 1976 by the family and friends of Carrie Peters to be used to aid deserving students.

Addie B. Flowers Scholarship Fund

Established in 1978 as a memorial to the late Ms. Flowers, this fund has been designated to aid students in Caldwell County in need of financial assistance.

Lenoir Kiwanis Club Scholarship

This fund is provided by the Lenoir Kiwanis Club to aid needy students.

Wilford Randolph McGowan Scholarship

Established in 1978 as a memorial to Randy McGowan by his friends and family, this fund is to be used for residents of Caldwell and contiguous counties. It is to be based on need and academic promise.

Harold Coffey Memorial Scholarship

The Coffey Foundation established this scholarship fund in 1978 as a memorial to Mr. Coffey. Its recipients are to be needy residents of Caldwell and contiguous counties.

Western North Carolina Lung Association Scholarship

The association has provided funds to be used for a deserving nursing student.

Lenoir Lions Club Health Care Scholarship

The Lenoir Lions Club provides funds to aid needy students in the nursing, radiology, and recreational leadership programs.

E.E. Stafford Scholarship

This fund was established in 1979 by the Lenoir Civitan Club to aid a needy Caldwell County native.

Vester Corpening Scholarship

Established in 1980 by the Ebony Kinship Club, this memorial fund will aid needy students from Caldwell County.

Robin Triplett Scholarship

The Triplett family has requested that this memorial scholarship be used to aid a needy, handicapped student.

Cade Shaver Memorial Scholarship

Established in 1980 by the Cade Shaver Sunday School Class of the First Baptist Church, Hudson, N.C., the scholarship is to be used by a student majoring in religion, teaching, or human services.

Julia Alexander Memorial Scholarship

Established in 1981, this award is designated for a student in the secretarial science or business administration program who maintains a GPA of 2.5. This fund honors a past president of the college's NCAEOP chapter.

IV. FOUNDATIONS

Many students who enroll at Caldwell Community College and Technical Institute receive financial assistance from private foundations. Some of this assistance is in the form of gifts and scholarships. Other students are able to borrow funds from these foundations to continue their education.

C.L. Robbins Foundation

Students enrolling at Caldwell Community College and Technical Institute are eligible to apply for financial assistance through the Robbins Foundation. Applications are reviewed by the college's financial aid committee of the Robbins Foundation.

Applications may be secured from the financial aid officer at Caldwell Community College and Technical Institute or from the Foundation.

College Foundation Loan

North Carolina residents may apply for a North Carolina Insured Student Loan through the College Foundation. Applicants must be enrolled full time and be in good academic standing. Loans may not exceed the total cost of education less other financial aid received. The amount of the loan is determined by the Foundation after consideration of the school's recommendation. Some borrowers may be eligible for federal interest benefits. After graduation or upon withdrawal from school, the borrower then assumes the full nine percent interest on the balance of the loan.

V. OTHER AGENCIES AND RESOURCES

Caldwell Community College and Technical Institute serves as a referral and information agency for the following resources:

1. Veterans benefits
2. Social Security Agency
3. Vocational Rehabilitation Agency
4. Department of Social Services
5. Various other North Carolina agencies

STUDENT DEVELOPMENT

GENERAL PHILOSOPHY

The philosophy of the student development division reflects the stated mission, purpose, and philosophy of the institution, which is the total development of students. The division takes an active role in providing opportunities for mutual problem solving, developing relevant experiences, and promoting a general atmosphere in which students may develop their full potential as human beings.

COUNSELING

Opportunities for counseling are made available to all students enrolled in the college. Information and counseling are available to assist students in various areas, such as admissions, course and program selection, financial aid, personal and social problems, career selection, job placement, study habits, college transfer, veterans' information, and human development courses.

ORIENTATION

New students are expected to participate in an orientation program designed to promote a more rapid adjustment to the institution. The orientation programs are usually held in late summer or early fall of each year.

HOUSING

The college does not have housing facilities, but students are generally able to locate satisfactory housing in the area. It is important that both students and landlords have a complete understanding of rental conditions so that there will be no misunderstandings concerning such details.

TRANSPORTATION

The college provides no transportation service for students. There are no buses or other forms of public transportation, so students must have their own forms of transportation and/or participate in car pools.

CAREER INFORMATION/COUNSELING

During spring quarter 1980, Caldwell Community College and Technical Institute became one of twenty-seven demonstration sites for CHOICES. CHOICES is a career information system that uses a computer terminal to provide accurate, up-to-date information about occupations, training requirements, and job opportunities available in North Carolina. A career counselor is available to assist in the use of the computer and in interpreting the information CHOICES provides. Appointments for use of CHOICES can be made by contacting the student development secretary. CHOICES is available from 8:30 a.m. to 4:00 p.m., Monday through Friday.

STUDENT/ALUMNI JOB PLACEMENT

The placement of students and alumni in jobs is a function of the student development division. A career counselor seeks available job listings from local employers, and students and alumni are encouraged to register and confer with this office in their search for meaningful employment.

STUDENT CONDUCT AND RESPONSIBILITIES

It is expected that students will conduct themselves as responsible adults, thus obeying all federal, state, and local laws as well as specific college regulations. The board of trustees retains the right to pass certain regulations governing the conduct of students on campus and at college-sponsored events. Specific information regarding these regulations is found in the student handbook. Students may be dismissed whose conduct violates these laws or regulations or whose conduct is considered incompatible with the purposes of the college. THEREFORE, ALL STUDENTS ARE HEREBY GIVEN NOTICE TO EXAMINE THE STUDENT HANDBOOK PRIOR TO ADMISSION AND TO UNDERSTAND ITS CONTENTS. Copies of the handbook are available in the student development office.

STUDENT GRIEVANCE PROCEDURE

Procedures have been established for students to follow when or if they feel they have been treated unjustly or in a discriminatory manner. Both informal and formal grievance procedures are described in the student handbook under the heading, "Grievance Procedures."

STUDENT ACTIVITIES AND ORGANIZATIONS

STUDENT GOVERNMENT ASSOCIATION

The student government association is composed of all students who enroll in curriculum programs at the college. Officers and senators are elected each year to serve the student body in promoting various activities and opportunities for out-of-class learning, social contacts, entertainment, and self-governance. The elected officers and senators strive to promote the general welfare of the students in a democratic fashion.

A copy of the student government constitution may be found in the student handbook.

CLUBS AND ORGANIZATIONS

Various clubs and organizations have been developed by students at the college:

- Departmental/Subject Related Clubs
  - Cosmetology Club
  - Recreation Therapy Club
  - Nursing Club
  - Sigma Tau Omega (Radiology)
  - Lambda Mu Society (Library Technology)
  - Early Childhood Club
- General Interest Clubs
  - Ebony Kinship
  - Art Society
  - Chess Club
  - Photography Club
  - Veterans Club
  - Circle K

Any group of students may create a new club by following the steps outlined in the student government constitution in the student handbook.

ATHLETICS

The college is a member of the National Junior College Athletic Association and the Western Tarheel Conference and participates in intercollegiate golf, tennis, and basketball. Both men and women participate on the same golf and tennis teams, and the men and women have separate basketball teams. The school colors are blue and white and the mascot is the Cavalier.

Students interested in any of these sports should contact the various athletic coaches in the faculty office area.

INTRAMURALS

Various intramural sports opportunities are available for students, faculty, and staff at the college. Volleyball, chess, tennis, ping pong, shuffleboard, badminton, basketball, pickleball, and frisbie football are among the intramural offerings during each year.

Students interested in participating should contact the intramural coordinator in the faculty office area and watch for announcements on the intramural bulletin board in the student lounge.

STUDENT ACTIVITIES

Personal and social development is as important a part of education as academic improvement, and the college is committed to providing various student activities on campus to encourage development in these areas. In order to finance these activities, a student activity fee of $1.00 per course (up to a maximum of $5) is charged each student. The fee is used to support such activities and organizations as the following: campus clubs; dances; cook-outs; picnics; intercollegiate athletics; intramurals; purchase and maintenance of the television set, pool tables, and related equipment; student government activities; scholarships; trophies; speakers; film series; a variety of cultural programs; skiing excursions; and a variety of miscellaneous activities. Students who wish to initiate new activities should contact the student government association office for assistance.

LEARNING RESOURCE CENTER

The purpose of the Caldwell Community College and Technical Institute learning resource center is to support the established objectives of the total educational program through a collection of print and non-print media and audiovisual equipment, orientation and references services, and audiovisual and reprographic production.

Students are encouraged to look upon the LRC as an extension of their classroom instruction. The LRC has study stations and resources to support study and provide for recreational reading, listening, and viewing. In addition, the LRC staff are always ready to be of assistance.

LIFE SKILLS CENTER

The life skills center is a newly designed department devoted to assisting students in academic and personal matters, thus enabling them to move through their college experience successfully. The center is presently scattered throughout the campus, but will be brought together upon the completion of a new building by the fall of 1982.

Among the areas which are a part of the center are:

- Advancement Lab
- Reading Lab
- Testing Lab
- Selected Developmental Courses
- Human Resources Development
- High School Diploma and Adult Basic Education
- Various Student Services

Faculty and staff who are associated with the center are interested in the student's success and wish to do their part toward a productive experience at CCC & TI.

TESTING CENTER

Caldwell Community College and Technical Institute follows an "open door" policy and does not impose restrictive standards for admission to the institution. A student's capabilities do have to be determined, thereby, helping to eliminate the failure factor which leads to low self-esteem, lack of confidence, discouragement, and eventual withdrawal from school. Placement inventories are used for this purpose.

The testing center makes available to students, at no cost, tests which measure aptitude, personality, achievement, and vocational interest.

The testing center provides proper evaluation and control of all psychological tests.

PROGRAMS OF STUDY

SPECIAL CODING SYSTEM

F	Course will be offered FALL QUARTER.
W	Course will be offered WINTER QUARTER.
S	Course will be offeredSPRING QUARTER
SS	Course will be offered SUMMER QUARTER
D	Course will be offered when sufficient students and instructor are available.

The numbers to the right of the course title represent the following: class, lab, credit. For example:

	Class	Lab	Quarter Hour Credit
ENG 203 English Literature	3	0	3

In order to determine contact hours, add class hours plus lab hours.

For example:	Class	Lab	Quarter Hour Credit
ART 120 Ceramics	2	2	3

Two class hours plus 2 lab hours equals 4 contact hours.

Where no prerequisite is listed, none is required.

OCCUPATIONAL DIPLOMA PROGRAMS

Diploma programs are designed to prepare persons for trade level occupations. Emphasis is given to the development of manipulative skills. Caldwell Community College and Technical Institute offers the following diploma programs:

AUTO BODY REPAIR
AUTOMOTIVE MECHANICS
COSMETOLOGY
DIESEL VEHICLE MAINTENANCE
ELECTRICAL INSTALLATION AND MAINTENANCE
ELECTRONIC DATA SYSTEMS +
FURNITURE PRODUCTION TECHNOLOGY +
MACHINE SHOP
MECHANICAL DRAFTING +
NURSING—ASSOCIATE DEGREE +
TOOL AND DIE
UPHOLSTERY, CUTTING, SEWING*
WELDING

+ Diploma options of two-year programs
*Approved but not offered in 1981-82.

AUTOMOTIVE BODY REPAIR (V-001)

CAREER INFORMATION

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, estimate, repair, and paint automobile bodies. Manual skills are developed in practical shop work. The study of automobile bodies, the stresses of metal, the composition of paint constitute the curriculum.

Complexity in automobile vehicles increases each year because of scientific discovery and new engineering. The changes are reflected not only in passenger vehicles, but also in trucks, buses, and a variety of motor vehicles. This curriculum provides a basis for the student to compare and adapt to new techniques and new tools for repairing motor vehicle bodies.

Basic hand tools are required. Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
AUB	1101	Auto Body I	4	12	8
WLD	1101	Auto Body Welding I	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Personal Development	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17
WINTER QUARTER					
AUB	1102	Auto Body II	4	12	8
WLD	1130	Auto Body Welding II	1	3	2
BUS	1103	Small Business Operation	3	0	3
PHY	1101A	Automotive Applied Science	2	2	3
			10	17	16
SPRING QUARTER					
AUB	1103	Auto Body III	4	12	8
DFT	112	Auto Body Drafting Interpretation	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
AUB	1104	Auto Body IV	4	12	8
AUB	1105	AutoBody Shop Application	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

AUTO BODY REPAIR

*Part-time Curriculum**

AUB	1101-1	Auto Body Repair I	2-6-4
AUB	1101-2	Auto Body Repair I	2-6-4
AUB	1102-1	Auto Body Repair II	2-6-4
AUB	1102-2	Auto Body Repair II	2-6-4
AUB	1103-1	Auto Body Repair III	2-6-4
AUB	1103-2	Auto Body Repair III	2-6-4
AUB	1104-1	Auto Body Repair IV	2-6-4
AUB	1104-2	Auto Body Repair IV	2-6-4
AUB	1105-1	Auto Body Shop Applications	1-3-2
AUB	1105-2	Auto Body Shop Applications	1-3-2
AUB	1105-3	Auto Body Shop Applications	1-3-2
AHR	1101-1	Automotive Air Conditioning	3-0-3
AHR	1101-2	Automotive Air Conditioning	0-3-1
BUS	1103	Small Business Operations	3-0-3
DFT	113	Auto Body Drafting Interpretation	1-3-2
ENG	1102	Communication Skills	3-0-3
MAT	1101	Fundamentals of Math	3-0-3
PHY	1101A	Automotive Applied Science	2-2-3
PSY	101	Personal Development	1-2-2
RDG	092	Reading	1-3-2
WLD	1101	Auto Body Welding I	1-3-2
WLD	1130	Auto Body Welding II	1-3-2

*Usually evenings.

AUTOMOTIVE MECHANICS (V-003)

CAREER INFORMATION

Automotive mechanics diagnose, maintain, and repair mechanical, electrical, and other component parts of passenger cars, trucks, and buses. In some communities and rural areas they also may repair body parts, service tractors, marine engines, and other types of equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They use shop manuals and other technical publications to assist in analysis, disassembly, and identification of component parts.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work, such as repairing only electrical components, power steering, power brakes, or automatic transmissions. Usually, such specialists have had "all-round" training in general automotive repair.

Basic hand tools are required. Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
AUM	1101	Automotive Mechanics I	4	12	8
DFT	110	Mechanics Drafting Interpretation I	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Personal Development	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17
WINTER QUARTER					
AUM	1102	Automotive Mechanics II	4	12	8
DFT	111	Mechanics Drafting Interpretation II	1	3	2
BUS	1103	Small Business Operations	3	0	3
PHY	1101A	Automotive Applied Science	2	2	3
			10	17	16
SPRING QUARTER					
AUM	1103	Automotive Mechanics III	4	12	8
WLD	1129	Basic Welding	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
AUM	1104	Automotive Mechanics IV	4	12	8
AUM	1105	Automotive Servicing	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

AUTOMOTIVE MECHANICS

*Part-time Curriculum**

AHR	1101-1	Automotive Air Conditioning	3-0-3
AHR	1101-2	Automotive Air Conditioning	0-3-1
AUM	1101-1	Automotive Mechanics I	2-6-4
AUM	1101-2	Automotive Mechanics I	2-6-4
AUM	1102-1	Automotive Mechanics II	2-6-4
AUM	1102-2	Automotive Mechanics II	2-6-4
AUM	1103-1	Automotive Mechanics III	2-6-4
AUM	1103-2	Automotive Mechanics III	2-6-4
AUM	1104-1	Automotive Mechanics IV	2-6-4
AUM	1104-2	Automotive Mechanics IV	2-6-4
AUM	1105-1	Automotive Servicing	1-3-2
AUM	1105-2	Automotive Servicing	1-3-2
BUS	1103	Small Business Operations	3-0-3
DFT	110	Mechanics Drafting Interpretation I	1-3-2
DFT	111	Mechanics Drafting Interpretation II	1-3-2
ENG	1102	Communications Skills	3-0-3
MAT	1101	Fundamentals of Math	3-0-3
PHY	1101A	Automotive Applied Science	2-2-3
PSY	101	Personal Development	1-2-2
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	1-3-2

*Usually evenings.

ADVANCED AUTOMOTIVE OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
PME	1202	Auto Electrical Electronics	4	9	7
PME	1203	Automotive Engine Tune-up	4	9	7
Elective			1	3	2
			9	21	16
WINTER QUARTER					
PME	1221	Front Suspension, Alignment and Power Steering	1	3	2
PME	1224	Advanced Automatic Transmissions	3	12	7
PME	1226	Automobile Servicing II	2	9	5
			6	24	14

ADVANCED IMPORTED CAR OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
T-MAT	201	Math Decimal-Metric Conversion	3	0	3
AUT	1145	Transaxle Operation and Repair	3	9	6
AUT	1146	The Air Colled Engine	2	6	4
AUT	1147	Imported Car Carburetion	2	6	4
			10	21	17
WINTER QUARTER					
AUT	1150	Imported Car Valve Trains	2	6	4
AUT	1154	The Wankel Engine	3	9	6
AUT	1158	Front Wheel Drive Systems	2	6	4
Elective					
			7	21	14

COSMETOLOGY (V-009)

CAREER INFORMATION

Today the cosmetologist is called upon to advise men and women on problems of makeup, diet, and care of hair, skin, and hands, including the nails. Cosmetology has become a science consisting of the use of cosmetics based on scientific principles. The cosmetology curriculum is designed to prepare the student for employment in the field of cosmetology. The curriculum provides instruction and practice in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair shaping, and styling. This curriculum is approved by the North Carolina State Board of Cosmetic Art Examiners.

The first quarter of instruction consists of an introduction to cosmetology, including the fundamentals of ethics, history, theory, and practice. The class activities include practical lessons, lectures, demonstrations, and student practice on wefts or mannequins.

The second quarter of instruction places more emphasis on manipulative skills. The acquisition of correct habits and skills is stressed. Practical work is done almost exclusively on patrons and models.

Reading level of 7.0 or RDG 092 required for graduation.

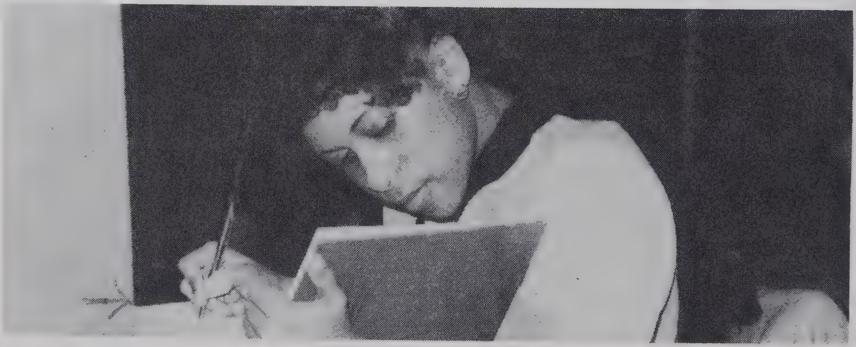
		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
COS	1001	Scientific Study I	4	6	6
COS	1011	Mannequin Practice	1	18	7
			5	24	13

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
COS	1002	Scientific Study II	5	0	5
ENG	1102	Communication Skills	3	0	3
COS	1022	Clinical Application I	0	24	8
			8	24	16
SPRING QUARTER					
COS	1003	Scientific Study III	5	0	5
COS	1033	Clinical Application II	0	24	8
			5	24	13
SUMMER QUARTER					
COS	1004	Scientific Study IV	5	0	5
COS	1044	Clinical Application III	0	24	8
			5	24	13
		TOTAL HOURS	23	96	55
FALL QUARTER*					
COS	1005	Public Relations for Cosmetologists	3	0	3
COS	1006	Beauty Salon Business Operations	3	0	3
COS	1055	Chemistry Relating to Cosmetology	3	0	3
COS	1066	Hairstyling II	1	18	7
			10	18	16

*NOTE: The North Carolina State Board of Cosmetic Art has approved two options for the student of cosmetology to become state licensed:

1. Successfully complete 1200 school hours and work a six-month apprenticeship under a licensed cosmetologist after passing the North Carolina State Board examination or
2. Successfully complete 1500 school hours (substituting 300 hours for the apprenticeship) and pass the North Carolina State Board examination to become a licensed cosmetologist.

The additional courses have been added for the student who chooses the 1500 hour option. These are more advanced courses which will better prepare the student to become a licensed cosmetologist.



COSMETOLOGY

*Part-time Curriculum**

COS	1001	Scientific Study I	4-6-6
COS	1002	Scientific Study II	5-0-5
COS	1003	Scientific Study III	5-0-5
COS	1004	Scientific Study IV	5-0-5
COS	1011	Mannequin Practice	1-18-7
COS	1022-1	Clinical Application I	0-6-2
COS	1022-2	Clinical Application I	0-18-6
COS	1033-1	Clinical Application II	0-15-5
COS	1033-2	Clinical Application II	5-0-5
COS	1044-1	Clinical Application III	0-3-1
COS	1044-2	Clinical Application III	0-21-7
ENG	1102	English Composition	3-0-3

*Usually evenings.

DIESEL VEHICLE MAINTENANCE (V-013)

CAREER INFORMATION

The diesel vehicle maintenance person maintains, services, and repairs commercial motor-freight transportation equipment. This person is skilled in service work such as oil changing, chassis greasing, fuel and water leakage testing, belt replacing, and safety equipment checking. Skilled maintenance personnel should be able to read electrical diagrams and interpret and apply technical and service manuals, as well as troubleshoot, diagnose, and make general repairs.

In addition to mechanical skills, diesel maintenance people should be able to complete forms involved with repair and maintenance of commercial vehicles. The skilled person knows shop and vehicle safety principles and is trained to communicate with and in the language of truck drivers and service managers.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
HTM	1101	Truck Mechanics I	4	12	8
DFT	110	Mechanics Drafting Interpretation	1	3	2
RDG	092	Reading	1	3	2
PSY	101	Personal Development	1	2	2
MAT	1101	Fundamentals of Math	3	0	3
			10	20	17
WINTER QUARTER					
HTM	1102	Truck Mechanics II	4	12	8
DFT	111	Mechanics Drafting Interpretation	1	3	2
BUS	1103	Small Business Operations	3	3	3
PHY	1101	Applied Science	2	2	3
			10	17	16

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
HTM	1103	Truck Mechanics III	4	12	8
WLD	1129	Basic Welding	1	3	2
ENG	1102	Communication Skills	3	0	3
AHR	1101	Automotive Air Conditioning	3	3	4
			11	18	17
SUMMER QUARTER					
HTM	1104	Truck Mechanics IV	4	12	8
HTM	1105	Truck Servicing	3	9	6
			7	21	14
		TOTAL HOURS	38	76	64

DIESEL VEHICLE MAINTENANCE

*Part-time Curriculum**

AHR	1101-1	Automotive Air Conditioning - Part I	3-0-3
AHR	1101-2	Automotive Air Conditioning - Part II	0-3-1
BUS	1103	Small Business Operations	3-0-3
DFT	110	Drafting Interpretation I	1-3-2
DFT	111	Mechanics Drafting Interpretation II	1-3-2
ENG	1102	Communication Skills	3-0-3
HTM	1101-1	Truck Mechanics I - Part I	2-6-4
HTM	1101-2	Truck Mechanics I - Part II	2-6-4
HTM	1102-1	Truck Mechanics II - Part I	2-6-4
HTM	1102-2	Truck Mechanics II - Part II	2-6-4
HTM	1103-1	Truck Mechanics III - Part I	2-6-4
HTM	1103-2	Truck Mechanics III - Part II	2-6-4
HTM	1104-1	Truck Mechanics IV - Part I	2-6-4
HTM	1104-2	Truck Mechanics IV - Part II	2-6-4
HTM	1105-1	Truck Servicing - Part I	1-3-2
HTM	1105-2	Truck Servicing - Part II	1-3-2
HTM	1105-3	Truck Servicing - Part III	1-3-2
MAT	1101	Fundamentals of Math	3-0-3
PHY	1101	Applied Science	2-2-3
PSY	101	Personal Development	1-2-2
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	1-3-2

*Usually evenings.

DRAFTING—MECHANICAL (V-017)

(DIPLOMA OPTION)

CAREER INFORMATION

This curriculum is designed to prepare students to enter the field of mechanical drafting. The first two quarters contain courses basic to all fields of drafting. The third and fourth quarters contain specialization and related courses that prepare one to enter mechanical drafting occupations. Each course is prepared to enable an individual to advance.

A mechanical draftsman performs the general duties of a draftsman and also specializes in making rough freehand and mechanical drafting sketches of proposed mechanical devices, drawing the necessary details. The mechanical draftsman also prepares accurate scale drawings of parts of machines from specifications.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
MAT	1101	Fundamentals of Math	3	0	3
MEC	101	Machine Processes	1	5	3
WLD	1129	Basic Welding	1	3	2
DFT	101	Technical Drafting	2	8	5
			8	19	15
WINTER QUARTER					
MAT	1102	Algebra	5	0	5
PHY	1101	Applied Science	2	2	3
MEC	102	Machine Processes	1	5	3
DFT	102	Technical Drafting	2	9	5
			10	16	16
SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
MAT	1104	Trigonometry	3	0	3
MEC	122	Production Procedures	4	3	5
PHY	1102	Applied Science	2	2	3
DFT	103	Technical Drafting	2	9	5
			14	14	19
SUMMER QUARTER					
MEC	205	Strength of Materials	3	2	4
MEC	210	Physical Metallurgy	3	3	4
DFT	201	Technical Drafting	3	9	6
DFT	204	Descriptive Geometry	2	4	4
			11	18	18
		TOTAL HOURS	43	67	68

ELECTRICAL INSTALLATION AND MAINTENANCE (V-018)

CAREER INFORMATION

A student will have acquired a basic knowledge of the National Electrical Code as it pertains to wiring design, wiring methods, materials, and equipment for general uses. He/she will also develop skill in using electrical prints, troubleshooting, electrical controls, and the repair of electrical and electronic equipment and will acquire a basic knowledge of business procedures and organization.

Within four to six years after completion of this course and with dedication to one's work, the student can become a highly skilled electrician craftsman in this area.

On the completion of the electrical installation and maintenance course, one would be prepared to enter into the electrical field as an assistant electrician in either of two general areas:

(1) Construction—including new wiring and rewiring of residential, commercial, and industrial buildings.

(2) Maintenance—including installation and maintenance of motors, motor controls, and industrial electronics.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	092	Reading	1	3	2
MAT	1115	Electrical Math	5	0	5
PSY	206	Interpersonal Skills	3	0	3
DFT	110	Blueprint Reading: Building Trades	0	3	1
ELC	1112	Direct and Alternating Current	4	12	8
			13	18	19
WINTER QUARTER					
ENG	1102	Communication Skills	3	0	3
PHY	1101	Applied Science	2	2	3
DFT	113	Blueprint Reading: Mechanical	0	3	1
ELC	1113	Alternating Current and Direct Current and Machines and Controls	4	12	8
			9	17	15
SPRING QUARTER					
PHY	1102	Applied Science	2	2	3
ELC	1124	Residential Wiring	5	9	8
ELC	1125	Commercial and Industrial Wiring	2	9	5
			9	20	16

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
BUS	1103	Small Business Operations	3	0	3
ELN	1118	Industrial Electronics Fundamentals	4	9	7
ELN	1119	Industrial Electronics Controls	4	12	8
			11	21	18
		TOTAL HOURS	42	76	68

ELECTRONIC DATA SYSTEMS (T-022)

(DIPLOMA OPTION)

CAREER INFORMATION

Data systems specialists often are called upon to perform many varied tasks in a computer center. They are required frequently to operate and program the computer system. They may be members of a programming team with the responsibility for preparing programs for computer solution through a joint effort. They may be asked to transform the general requirements of accountants, business managers, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals data systems specialists may be required to update, revise, correct, and write programs as the needs of management dictate.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
BUS	110	Office Machines	2	2	3
BUS	120	Principles of Accounting	3	2	4
EDP	101	Computers and Programming I	4	4	6
			11	11	16
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	121	Principles of Accounting	3	2	4
MAT	110	Business Math	5	0	5
EDP	102	Computers and Programming II	4	4	6
			15	6	18
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BUS	122	Principles of Accounting	3	2	4
EDP	103	Computers and Programming III	4	4	6
BUS	101	Introduction to Business	5	0	5
			15	6	18

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
EDP	214	Practicum I	0	15	5
EDP	208	Systems & Orientation	4	4	6
			7	19	14
		TOTAL HOURS	48	42	66

FURNITURE PRODUCTION ASSISTANT (V-040)

(DIPLOMA OPTION)

CAREER INFORMATION

This curriculum was developed by the furniture industry advisory committee and this college with the primary purpose of better performance on the job. This would include people who have furniture production jobs who want to improve themselves, as well as people without jobs who want to become qualified for jobs in the furniture industry.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
PSY	206	Interpersonal Skills	3	0	3
T-MAT	100	Mathematics	3	0	3
DFT	101F	Technical Drafting	2	6	4
FUR	104	Characteristics of Wood	3	0	3
FUR	108	Production Equipment I	4	0	4
			15	6	17

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
DFT	102F	Technical Drafting	2	6	4
FUR	102	Construction and Billing I	1	3	2
FUR	109	Production Equipment II	4	0	4
FUR	112	Routing, Scheduling, and Process	2	2	3
			9	11	13
SPRING QUARTER					
ISC	102	Industrial Safety	3	0	3
ISC	203	Motion Study	2	2	3
FUR	103	Construction and Billing II	1	3	2
FUR	106	Abrasive Materials and Glues	2	2	3
ENG	1102	English Communication Skills	3	0	3
			11	7	14
SUMMER QUARTER					
BUS	285	Cost Records and Estimates	2	0	2
ISC	103	Production Control	1	3	2
ISC	201	Industrial Organization and Management	3	0	3
ISC	202	Quality Control	3	0	3
ISC	207	Foremanship Supervision	3	0	3
FUR	107	Finishing Methods and Material	2	2	3
			14	5	16
		TOTAL HOURS	49	29	60

MACHINE SHOP (V-032)

CAREER INFORMATION

The machine shop is the backbone of the industrial economy and requires a special skilled worker to perform the complex operations involved. The machinist is the skilled worker who shapes metal parts by using machine tools and proper total shop practice. Both training and work experience enables the machinist to plan and carry through the operations needed in turning out a machined product. A skilled machinist is able to: select the proper tools, materials, and methods required for each job; plan the cutting and finishing operations called for on the blueprint or written instructions; make most standard shop computations related to tooling, feeds, speeds, and dimensions of the work; use precision measuring instruments such as micrometers, vernier calipers, vernier height gages, and indicators to maintain accuracies of the work to, sometimes, within thousandths of an inch.

Skilled workers must be able to set up and operate most types of machine tools such as drill presses, lathes, milling machines, boring machines, and grinders. In addition, a machinist also spends time setting up and operating some more productive machines such as numerical tape controlled machines, turret lathes, and automatic screw machines and becomes familiar with the composition of metals so as to be able to select, heat treat, and quench parts to improve their mechanical properties.

Such a broad knowledge enables the skilled machinist to turn a piece of metal into an intricate precise final product.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
MAT	1101	Fundamentals of Math	3	0	3
DFT	113	Blueprint Reading: Mechanical	0	3	1
WLD	1129	Basic Welding	1	3	2
MEC	1101	Machine Shop Theory and Practice	4	12	8
			8	18	14
WINTER QUARTER					
RDG	092	Reading	1	3	2
MAT	1102	Algebra	5	0	5
DFT	114	Blueprint Reading: Mechanical	0	3	1
MEC	1102	Machine Shop Theory and Practice	4	12	8
			10	18	16
SPRING QUARTER					
MAT	1104	Trigonometry	3	0	3
DFT	115	Blueprint Reading: Mechanical	0	3	1
MEC	1103	Machine Shop Theory and Practice	4	12	8
MEC	1115	Treatment of Ferrous Metals	2	3	3
			9	18	15
SUMMER QUARTER					
MAT	1123	Math: Machinist	3	0	3
MEC	1104	Machine Shop Theory and Practice	3	12	7
MEC	1116	Treatment of Nonferrous Metals	2	3	3
MEC	1122	Production Procedures	4	3	5
			12	18	18
		TOTAL HOURS	39	72	63

MACHINE SHOP

*Part-time Curriculum**

DFT	113	Blueprint Reading: Mechanical	0-3-1
DFT	114	Blueprint Reading: Mechanical	0-3-1
DFT	115	Blueprint Reading: Mechanical	0-3-1
MAT	1101	Fundamentals of Math	3-0-3
MAT	1102	Algebra	5-0-5
MAT	1104	Trigonometry	3-0-3
MAT	1123	Math: Machinist	3-0-3
MEC	1101-1	Machine Shop Theory and Practice	2-6-4
MEC	1101-2	Machine Shop Theory and Practice	2-6-4
MEC	1102-1	Machine Shop Theory and Practice	2-6-4
MEC	1102-2	Machine Shop Theory and Practice	2-6-4
MEC	1103-1	Machine Shop Theory and Practice	2-6-4
MEC	1103-2	Machine Shop Theory and Practice	2-6-4
MEC	1104-1	Machine Shop Theory and Practice	2-6-4
MEC	1104-2	Machine Shop Theory and Practice	1-6-3
MEC	1115	Treatment of Ferrous Metals	2-3-3
MEC	1116	Treatment of Nonferrous Metals	2-3-3
MEC	1122	Production Processes	4-3-5
RDG	092	Reading	1-3-2
WLD	1129	Basic Welding	1-3-2

*Usually evenings.

NURSING—ASSOCIATE DEGREE (V-038)

(DIPLOMA OPTION)

CAREER INFORMATION

Graduates of accredited programs of nurse education are prepared to function as beginning practitioners in a variety of situations, including hospitals; nursing homes; clinics; doctors', dentists', and veterinarians' offices; industry; and in some instances, public health facilities.

A student enrolled in the associate degree nursing program has career options at two points during the training. Upon successful completion of the first year, the student is prepared to practice as a practical nurse and is eligible for practical nurse licensing examinations. The student is also eligible to apply for the second year of the nursing program.

Upon successful completion of the second year, the student is prepared to practice with technical competence, is eligible for registered nurse licensing examinations, and qualifies for an associate degree in nursing. These examinations are administered by the North Carolina Board of Nursing and are given twice each year, in February and July.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the nursing program, see the student handbook or the college registrar.

FIRST LEVEL—PRACTICAL NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
BIO	105	Basic Life Science	4	2	5
PSY	201	General Psychology	3	0	3
NUR	101	Fundamentals of Nursing	6	9	9
NUR	102	Nutrition	3	0	3
			18	14	23
WINTER QUARTER					
PSY	210	Human Growth and Development	3	0	3
NUR	103	Pharmacology	3	0	3
NUR	104	Medical - Surgical I	8	0	8
NUR	105	Medical - Surgical I Lab	0	15	5
BIO	135	Microbiology	2	2	3
			16	17	22
SPRING QUARTER					
SOC	201	Introduction to Sociology	3	0	3
NUR	106	Maternal - Infant Health I	4	0	4
NUR	107	Maternal - Infant Health I Lab	0	6	2
NUR	108	Child - Health Nursing I	4	0	4
NUR	109	Child - Health Nursing I Lab	0	6	2
			11	12	15
SUMMER QUARTER					
NUR	110	Medical-Surgical II	6	0	6
NUR	111	Medical-Surgical II Lab	0	18	6
NUR	112	Seminar I	3	0	3
			9	18	15
		TOTAL HOURS	54	61	75

TOOL AND DIE (V-048)

CAREER INFORMATION

The tool and die maker provides the foundation of many industries. This individual is highly skilled and possesses a tremendous depth of technical knowledge. This curriculum is designed to start an advanced machinist into the elementary requirements of tool and die making and progress into more complex dies, jigs and fixtures, gages, and other areas.

The program will enable the advanced machinist to compare the machines found in a tool and die shop with those found in the average machine shop. Each student will be required to become highly proficient in the use of the machines used in tool and die making. The related courses are designed to give the student an opportunity to advance knowledge in mathematics, strength of materials, drafting, and hydraulics and pneumatics.

Occupational opportunities are found in metal-working industries, job shops, captive tool rooms, maintenance shops, and a wide variety of other industries using tools, dies, and jigs and fixtures for repetitive production products.

To be eligible for the tool and die program, the student must have completed the machine shop curriculum or have equivalent work experience.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
DFT	1207	Machine Drafting	1	5	3
MAT	1201	Trigonometry	5	0	5
MEC	1201	Machine Processes	3	12	7
			9	17	16
WINTER QUARTER					
MEC	1202	Machine Processes	3	12	7
MEC	1210	Metallurgy	2	3	3
MAT	1202	Uses of Handbook	3	0	3
MEC	1207	Toolmaking	3	3	4
			11	18	17
SPRING QUARTER					
MEC	1203	Machine Processes	3	12	7
DFT	1216	Blueprint Reading	0	3	1
MEC	1205	Strength of Material	2	3	3
MEC	1235	Hydraulics and Pneumatics	2	3	3
			7	21	14
SUMMER QUARTER					
MEC	1204	Machine Processes	3	12	7
MEC	1299	Special Problems (Tools and Molds)	3	6	5
MEC	1214	Tool Design and Planning	2	3	3
			8	21	15
		TOTAL HOURS	35	77	62

UPHOLSTERING (V-082)

CAREER INFORMATION

Upholstering offers both men and women excellent employment opportunities in industry or for self-employment. It is among the most skilled and better paying occupations in the furniture industry. The primary emphasis in the program is upon actual practical experience in the springing up, covering, trimming, cutting, and sewing phases of upholstery. Emphasis throughout is placed upon quality and the development of production speed.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
UPH	1111	Upholstery Materials and Methods I	1	11	5

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
UPH	1112	Upholstery Materials and Methods II	1	11	5
SPRING QUARTER					
UPH	1113	Upholstery Materials and Methods III	1	11	5
SUMMER QUARTER					
UPH	1114	Upholstery Sewing I	1	11	5
FALL QUARTER					
UPH	1115	Upholstery Sewing II	1	11	5
WINTER QUARTER					
UPH	1116	Upholstery Cutting I	1	1	5
SPRING QUARTER					
UPH	1117	Upholstery Cutting II	1	11	5
		TOTAL HOURS	7	77	35

WELDING (V-050)

CAREER INFORMATION

The principal duty of the welder who uses manual techniques is to control the fusion of metals by directing the heat from either an electric arc or gas welding torch and to add filler metal where necessary to complete the joint. Welders should possess a great deal of manipulative skill with a knowledge of jigs, mathematics, basic metallurgy, and blueprint reading.

A well-trained welder may find employment in many different industries. Shipbuilding, automotive, aircraft, guided missiles, railroad, tank construction, and pipe fitting industries are examples of manufacturing concerns which employ welders.

Reading level of 7.0 or RDG 092 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
WLD	1120	Welding Theory and Practice	3	12	7
RDG	092	Reading	1	3	2
DFT	113	Blueprint Reading: Mechanical	0	3	1
MEC	1117	Basic Metals Identification	1	2	2
WLD	1112	Welding Inspection and Codes	3	0	3
			8	20	15
WINTER QUARTER					
WLD	1121	Welding Theory and Practice	2	18	8
DFT	120	Blueprint Reading: Welding	0	3	1
ENG	1102	Communication Skills	3	0	3
MAT	1101W	Practical Math for Welders	5	0	5
			10	21	17

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
WLD	1123-1	Inert Gas Welding I (TIG)	2	6	4
WLD	1124	Pipe Welding	3	12	7
DFT	121	Pattern Development and Sketching	0	3	1
PHY	1101W	Applied Science	2	2	3
			7	23	15
SUMMER QUARTER					
WLD	1122	Commercial and Industrial Practices	3	9	6
WLD	1125	Certification Practices	3	6	5
WLD	1123-2	Inert Gas Welding II (MIG)	2	6	4
BUS	1103	Small Business Operations	3	0	3
			11	21	18
		TOTAL HOURS	36	85	65

WELDING

*Part-time Curriculum**

BUS	1103	Small Business Operations	3-0-3
DFT	113	Blueprint Reading: Mechanical	3-0-3
DFT	120	Blueprint Reading: Welding	0-3-1
DFT	121	Pattern Devel. & Sketching	0-3-1
ENG	1102	Communications Skills	3-0-3
MAT	1101W	Practical Math for Welders	5-0-5
MEC	1117	Basic Metals Identification	1-2-2
PHY	1101W	Applied Science	2-2-3
RDG	092	Reading	1-3-2
WLD	1112	Welding Inspection & Codes	3-0-3
WLD	1120-1	Welding Theory & Practice	2-6-4
WLD	1120-2	Welding Theory & Practice	1-6-3
WLD	1121-1	Welding Theory & Practice	1-6-3
WLD	1121-2	Welding Theory& Practice	1-6-3
WLD	1121-3	Welding Theory & Practice	0-6-2
WLD	1122-1	Commercial & Industrial Pr.	2-6-4
WLD	1122-2	Commercial & Industrial Pr.	1-3-2
WLD	1123-1	Inert Gas I	2-6-4
WLD	1123-2	Inert Gas II	2-6-4
WLD	1124-1	Pipe Welding	2-6-4
WLD	1124-2	Pipe Welding	1-6-3
WLD	1125	Certification Practices	3-6-5

*Usually evenings.

OCCUPATIONAL ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS

The associate in applied science degree programs are designed to prepare persons for technician level occupations. More emphasis is given to theory than in diploma courses. Also, roughly one-half of the course requirements are in general education and the sciences underlying the particular occupational area. Caldwell Community College and Technical Institute offers the following associate in applied science degree programs:

- BIOMEDICAL ELECTRONICS TECHNOLOGY
- BUSINESS ADMINISTRATION
  - Pre-financial Management/Accounting Option
  - Industrial Management Option
  - Personnel Administration Option
  - Business Management Option
- DRAFTING AND DESIGN TECHNOLOGY
- EARLY CHILDHOOD EDUCATION
- ELECTRONIC DATA SYSTEMS
- ELECTRONICS ENGINEERING TECHNOLOGY
- FOOD SERVICE MANAGEMENT
- FURNITURE PRODUCTION TECHNOLOGY
- INDUSTRIAL MAINTENANCE ENGINEERING
- LIBRARY MEDIA TECHNICAL ASSISTANT
- NUCLEAR MEDICINE TECHNOLOGY
- NURSING—ASSOCIATE DEGREE
- OCCUPATIONAL THERAPY ASSISTANT
- PARALEGAL TECHNOLOGY
- PLASTICS TECHNOLOGY*
- PUBLIC ADMINISTRATION
- RADIOLOGIC TECHNOLOGY
- RECREATION LEADERSHIP (Therapeutic and Community)
- SECRETARIAL SCIENCE
  - Executive Secretary Option
  - Medical Secretary Option

*Approved but not offered in 1981-82.

BIOMEDICAL ELECTRONICS TECHNOLOGY (T-158)

CAREER INFORMATION

Because of the physician's increased use of complex equipment for diagnosis, regulation of body functions, and monitoring and reading of patient problems and progress, well trained persons are needed for medical equipment maintenance and repair. A biomedical technician must be able to install, operate, repair, and maintain electronic equipment such as x-ray machines, incubators, electronic thermometers, pacemakers, radio frequency surgical devices, cardiac pressure monitors, sterilizers, operating room lamps and tables, automatic culture counters, and pulmonary equipment. The biomedical technician may also be called upon to maintain or make emergency repairs on surgical equipment in the hospital operating room, to instruct hospital personnel in the safe and correct use of equipment, and to be involved in evaluation and testing of new electromedical devices.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ELC	112	Alternating and Direct Current	2	6	4
T-MAT	101	Technical Math	5	0	5
ENG	101	Grammar and Composition	2	3	3
PHY	101	Physics: Work, Energy, Power	3	2	4
			12	11	16
WINTER QUARTER					
ELN	124	Electronics Fundamentals	2	4	4
ENG	102	English Composition	3	0	3
T-MAT	102	Technical Math	5	0	5
PHY	102	Physics: Properties of Matter	3	2	4
			13	6	16
SPRING QUARTER					
ELN	134	Intermediate Electronics	2	4	4
T-MAT	103	Technical Math	5	0	5
MEC	235	Hydraulics and Pneumatics	3	3	4
ENG	104	Report Writing	3	0	3
			13	7	16
SUMMER QUARTER					
ELN	224	Advanced Electronics	2	4	4
BIO	105	Basic Life Science	4	2	5
ELN	234	Digital Electronics	2	4	4
BMT	254	Biomedical Instrumentation I	2	4	4
			10	14	17
FALL QUARTER					
BIO	208	Introduction to Study of Diseases	3	0	3
BMT	264	Biomedical Instrumentation II	2	4	4
BMT	274	X-Ray and Nuclear Medicine	2	4	4
BMT	201	Medical Institutions	3	0	3
Elective			3	0	3
			13	8	17
WINTER QUARTER					
BMT	271	Biomedical Instrumentation III	2	4	4
BMT	244	Safety Inspections and Standards	2	4	4
BMT	280	Medical Circuit Troubleshooting	2	4	4
Elective			3	0	3
			9	12	15
SPRING QUARTER					
BMT	228	Practicum	0	39	13
		TOTAL HOURS	70	97	110

BUSINESS ADMINISTRATION (T-018)

CAREER INFORMATION

The graduate of the business administration curriculum may enter a variety of career opportunities from beginning office clerk to management trainee. The duties and responsibilities of the graduate vary in different firms. Positions are potentially available in business, accounting, advertising, banking, credit, finance, retailing, wholesaling, hotel, tourism, industry, transportation, and communications.

Through the department of business administration, students may obtain majors in general business, financial management/accounting, personnel management, and industrial management.

Reading level of 12.0 or RDG 101 required for graduation.

INDUSTRIAL MANAGEMENT OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
BUS	120	Principles of Accounting	3	2	4
			17	8	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Communication	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	3	2	4
			17	4	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	3	2	4
BUS	272	Principles of Supervision	3	0	3
			15	4	17
FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
PSY	201	General Psychology	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BUS	225	Cost Accounting	3	2	4
BUS	233	Personnel Management	3	0	3
			15	2	16

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
PSY	206	Interpersonal Skills	3	0	3
ISC	102	Industrial Safety	3	0	3
BUS	285	Cost Records and Estimates	2	0	2
Elective			3	0	3
Elective			3	0	3
			14	0	14
SPRING QUARTER					
ECO	204	Industrial Relations	3	0	3
ISC	202	Quality Control	3	0	3
BUS	235	Business Management	3	0	3
ISC	103	Production Control	1	3	2
Elective			3	0	3
			13	3	14
		TOTAL HOURS	91	21	100

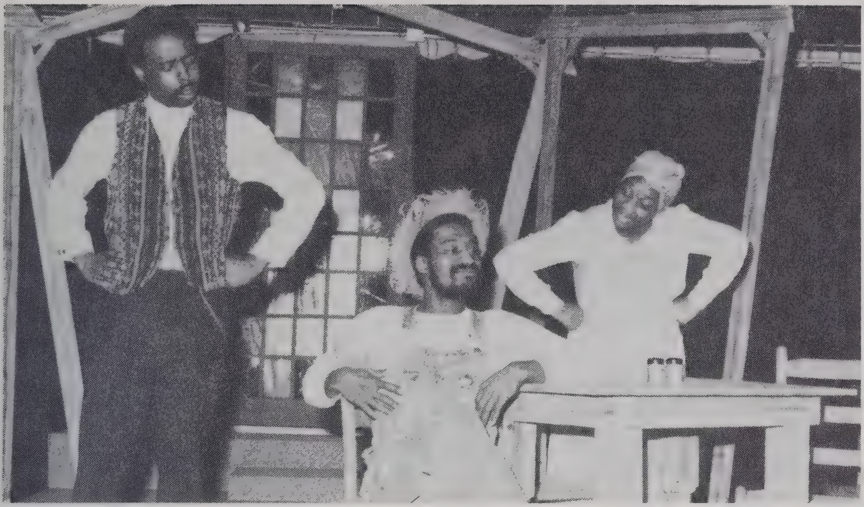
PERSONNEL ADMINISTRATION OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
BUS	120	Principles of Accounting	3	2	4
			17	5	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Communication	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	3	2	4
			17	4	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	3	2	4
BUS	272	Principles of Supervision	3	0	3
			15	4	17

FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
PSY	201	General Psychology	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BUS	123	Business Finance	3	0	3
BUS	233	Personnel Management	3	0	3
Elective			3	0	3
			18	0	18
WINTER QUARTER					
ECO	202	Principles of Economics II	3	0	3
PSY	202	General Psychology	3	0	3
SOC	201	Introduction to Sociology	3	0	3
BUS	124	Business Finance	3	0	3
Elective			3	0	3
			15	0	15
SPRING QUARTER					
ECO	204	Industrial Relations	3	0	3
PSY	206	Interpersonal Skills	3	0	3
SOC	203	Contemp. Problems and Social Issues	3	0	3
BUS	235	Business Management	3	0	3
BUS	271	Office Management	3	0	3
ISC	102	Industrial Safety	3	0	3
			18	0	18
		TOTAL HOURS	100	13	107

BUSINESS MANAGEMENT OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	101	Introduction to Business	5	0	5
BUS	102	Typewriting	2	3	3
BUS	120	Principles of Accounting	3	2	4
			17	8	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
ENG	105	Business Communication	3	0	3
ECO	108	Consumer Economics	3	0	3
BUS	110	Office Machines	2	2	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	3	2	4
			17	4	19



		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	3	2	4
BUS	272	Principles of Supervision	3	0	3
			15	4	17
FALL QUARTER					
ECO	201	Principles of Economics I	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BUS	123	Business Finance	3	0	3
BUS	239	Marketing	5	0	5
BUS	243	Advertising	3	2	4
			17	2	18
WINTER QUARTER					
ECO	202	Principles of Economics II	3	0	3
BUS	124	Business Finance	3	0	3
BUS	219	Credit Procedures	3	0	3
BUS	229	Taxes I	3	2	4
Elective			3	0	3
			15	2	16
SPRING QUARTER					
BUS	232	Sales Development	3	0	3
BUS	235	Business Management	3	0	3
BUS	247	Business Insurance	3	0	3
BUS	276	Money and Banking	3	0	3
Elective			3	0	3
			15	0	15
		TOTAL HOURS	96	20	105

FINANCIAL MANAGEMENT/ACCOUNTING OPTION

Evening Program Only

BUS	101	Introduction to Business	5-0-5
BUS	102	Typewriting	2-3-3
BUS	110	Office Machines	2-2-3
BUS	115	Business Law	3-0-3
BUS	116	Business Law	3-0-3
BUS	120	Principles of Accounting	3-2-4
BUS	121	Principles of Accounting	3-2-4
BUS	122	Principles of Accounting	3-2-4
BUS	219	Credit Procedures	3-0-3
BUS	220	Intermediate Accounting I	3-2-4
BUS	221	Intermediate Accounting II	3-2-4
BUS	222	Intermediate Accounting III	3-2-4
BUS	225	Cost Accounting	3-2-4
BUS	229	Taxes I	3-2-4
BUS	230	Taxes II	3-2-4
BUS	269	Auditing	3-2-4
BUS	272	Principles of Supervision	3-0-3
BUS	275	Programming	3-0-3
BUS	276	Money and Banking	3-0-3
ECO	108	Consumer Economics	3-0-3
ECO	201	Principles of Economics I	3-0-3
ECO	202	Principles of Economics II	3-0-3
EDP	104	Introduction to Data Systems	3-2-4
ENG	101	Grammar and Composition	2-3-3
ENG	102	English Composition	3-0-3
ENG	104	Report Writing	3-0-3
ENG	105	Business Communication	3-0-3
MAT	110	Business Math	5-0-5
PSY	201	General Psychology	3-0-3
SOC	201	Introduction to Sociology	3-0-3
SOC	203	Contemp. Problems and Social Issues	3-0-3

DRAFTING AND DESIGN TECHNOLOGY (T-043)

(DEGREE OPTION)

CAREER INFORMATION

This curriculum is designed to prepare a graduate to enter the world of work in the mechanical drafting field.

Upon completion of the first four quarters, students will be prepared to enter the field on the trade level. Students will study basic drafting in the first two quarters. From there they will go into the mechanical specialities for the remaining two quarters.

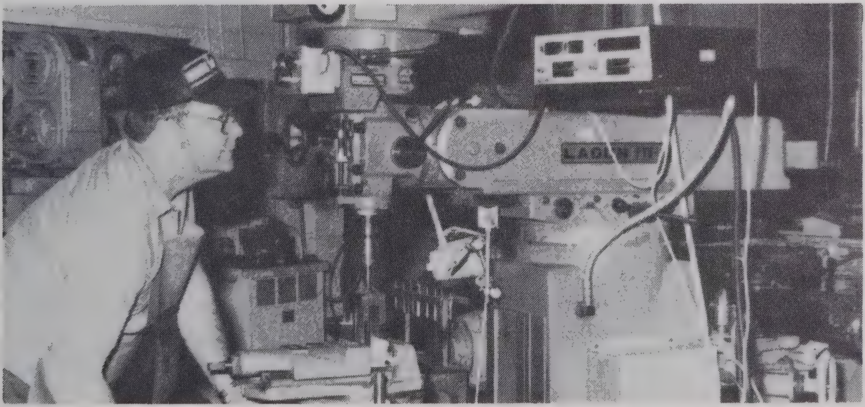
Related courses are offered in a sequential manner to enable students to progress in a chronological order according to the building method from basics to the advanced.

The person completing the course of study will be expected to communicate with people in architecture, mechanical engineering, mechanical drafting, tool and die making, skilled positions, unskilled positions, selling, or construction.

A person need not have a high school diploma in order to enter this course and receive a diploma. However, persons planning to continue for the fifth and sixth quarters and receive an A.A.S. degree must have a high school diploma or successfully pass the high school proficiency.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
T-MAT	101	Technical Math	5	0	5
PHY	101	Physics: Work, Energy, Power	3	2	4
DFT	101	Technical Drafting	2	8	5
MEC	101	Machine Processes	1	5	3
			13	18	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
T-MAT	102	Technical Math	5	0	5
PHY	102	Physics: Properties of Matter	3	2	4
DFT	102	Technical Drafting	2	8	5
MEC	102	Machine Processes	1	5	3
			14	15	20
SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
T-MAT	103	Technical Math	5	0	5
PHY	103	Physics: Electricity	3	2	4
PHY	106	Applied Mechanics	5	0	5
DFT	103	Technical Drafting	2	9	5
			18	11	22



		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
DFT	201	Technical Drafting	3	9	6
DFT	204	Descriptive Geometry	2	4	4
MEC	205	Strength of Materials	3	2	4
MEC	210	Physical Metallurgy	3	3	4
			11	18	18
WINTER QUARTER					
DFT	205	Design Drafting I	2	8	5
DFT	211	Mechanisms	3	2	4
MEC	211	Physical Metallurgy	3	3	4
WLD	101	Welding Practices	3	0	3
Elective			3	0	3
			14	13	19
SPRING QUARTER					
DFT	206	Design Drafting II	2	8	5
MEC	235	Hydraulics and Pneumatics	3	3	4
Elective			3	0	3
Elective			3	0	3
Elective			3	0	3
			14	11	18
		TOTAL HOURS	84	86	117

EARLY CHILDHOOD EDUCATION (T-073)

CAREER INFORMATION

The early childhood specialist curriculum is designed to fill the need for aides and technicians in a variety of job situations. The curriculum is a technical program including courses designed to give a broad general education in human growth and development and experience working with preschool children. Students will be given the basic skills needed to be competent assistants in a childcare program or continue on to acquire skills to be paraprofessionals in a variety of child development institutions.

The early childhood specialist should possess good inter-personal skills, a love for children, and should be adaptive in order to function effectively in this position. The major function of the early childhood specialist is the care and guidance of young children. This includes a concern for the mental, social, physical, and emotional growth and development of the child. In a school or a child development center this may include outdoor play, storytelling, language and communication skills, experiences with music, art and dramatic activities, field trips, food preparation and service, and other routines.

Job titles vary with different agencies and schools. Some of the terms used are educational assistant, teacher aide, childcare worker, early childhood specialist, and auxiliary educational personnel. Still others use assistant teacher or just teacher. Jobs for early childhood education assistants are found in hospitals, institutions for exceptional children, 24-hour care units, Headstart programs, day care and child development centers, private or cooperative nurseries and pre-kindergarten programs, and private schools.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
SPH	100	Interpersonal Communication	3	0	3
MUS	110	Recreational Music	3	0	3
EDU	101	Child Growth and Development I	4	0	4
EDU	203	Health and Nutrition	3	0	3
ENG	101	Grammar and Composition	2	3	3
RDG	101	Developmental Reading II	1	3	2
			16	6	18
WINTER QUARTER					
ENG	102	English Composition	3	0	3
EDU	102	Child Growth and Development II	4	0	4
EDU	202	Preschool Education	3	0	3
PSY	206	Interpersonal Skills	3	0	3
PED	185	First Aid and Safety	3	0	3
EDU	111	Seminar and Practicum I	0	2	1
			16	2	17
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDM	206	Children's Literature	3	0	3
PED	101	Physical Activities for Young Children	3	2	3
EDU	112	Seminar and Practicum II	0	4	2
PSY	204	Child Behavior	3	0	3
EDU	103	Child Growth and Development III	4	0	4
			16	6	18
FALL QUARTER					
PSY	201	General Psychology	3	0	3
EDU	220	Methods I	3	0	3
ART	204	Art for the Preschool Child	2	2	3
SPH	101	Fundamentals of Speech	3	0	3
EDU	230	Seminar and Practicum III	0	6	3
			11	8	15
WINTER QUARTER					
EDU	231	Seminar and Practicum IV	0	8	4
EDU	221	Methods II	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
SOC	101	Community Resources	3	0	3
Elective			3	0	3
			12	8	16

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
EDU	232	Seminar and Practicum V	0	12	6
Elective			3	0	3
Elective			3	0	3
Elective			3	0	3
			9	12	15
		TOTAL HOURS	80	42	99

ELECTRONIC DATA SYSTEMS (T-022)

(DEGREE OPTION)

CAREER INFORMATION

Data systems specialists often are called upon to perform many varied tasks in a computer center. They are required frequently to operate and program the computer system. They may be a member of a programming team with the responsibility for preparing programs for computer solution through joint effort. They may be asked to transform the general requirements of accountants, business managers, engineers, and mathematicians into specific programs which can be efficiently executed by the computer. At intervals data systems specialists may be required to update, revise, correct, and write programs as the needs of the management dictate.

Upon completion of the curriculum, the graduate is prepared to participate in several areas of an interesting and rewarding career.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
BUS	110	Office Machines	2	2	2
BUS	120	Principles of Accounting	3	2	4
EDP	101	Computers and Programming I	4	4	6
			12	11	16
WINTER QUARTER					
ENG	102	English Composition	3	0	3
MAT	110	Business Math	5	0	5
BUS	121	Principles of Accounting	3	2	4
EDP	102	Computers and Programming II	4	4	6
			15	6	18
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BUS	101	Introduction to Business	5	0	5
BUS	122	Principles of Accounting	3	2	4
EDP	103	Computers and Programming III	4	4	6
			15	6	18

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
MAT	214	Statistics	5	0	5
EDP	204	Computers and Programming IV	4	4	6
BUS	225	Cost Accounting	3	2	4
			15	6	18
WINTER QUARTER					
EDP	214	Practicum I	0	15	5
EDP	208	Systems Orientation	4	4	6
BUS	229	Taxes I	3	2	4
BUS	219	Credit Procedures	3	0	3
			10	21	18
SPRING QUARTER					
EDP	217	Data Processing Project	1	8	5
EDP	215	Practicum II	0	15	5
EDP	221	Programming & Lang. Survey	2	2	3
ISC	103	Production Control	1	3	2
			4	28	15
		TOTAL HOURS	71	78	103

ELECTRONICS ENGINEERING TECHNOLOGY (T-045)

CAREER INFORMATION

The electronic engineering technician is required to trouble shoot and repair all types of electronic equipment including communications equipment, consumer electronic equipment, and industrial electronic equipment. Although the technician generally specializes in one type of equipment, the base of knowledge is broad enough to troubleshoot and repair different types of equipment in a variety of environments. The electronic engineering technician may also be required to participate in design and development of electronic components and controls.

A technician's secondary duties include using hand tools, using test equipment, ordering and stocking spare parts, training operators, evaluating new and prospective equipment, communicating with subordinates and superiors, keeping records, and possibly most important, keeping abreast with changing technologies through self-study.

A reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
MAT	111	Algebra	5	0	5
PHY	101	Physics: Properties of Matter	3	2	4
CHM	101	General Chemistry I	3	3	4
ENG	101	Grammar and Composition	2	3	3
			13	8	16

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
MAT	112	Trigonometry	5	0	5
PHY	102	Physics: Work, Energy, Power	3	2	4
ENG	102	English Composition	3	0	3
ELC	112	Alternating and Direct Current	2	6	4
			13	8	16
SPRING QUARTER					
MAT	113	Analytical Geometry and Calculus I	5	0	5
ENG	104	Report Writing	3	0	3
DFT	119	Blueprint Reading: Electrical	0	3	1
ELN	124	Electronics' Fundamentals	2	4	4
Elective		(Humanities)	3	0	3
			13	7	16
FALL QUARTER					
ELN	134	Intermediate Electronics	2	4	4
ELC	119	Industrial Electronic Control	2	6	4
Elective		(Humanities)	3	0	3
Elective		(Math)*	5	0	5
			12	10	16
WINTER QUARTER					
ELN	224	Advanced Electronics	2	4	4
ELN	234	Digital Electronics	2	4	4
ELN	254	Electronic Instrumentation	2	4	4
Elective**			3	0	3
			9	12	15
SPRING QUARTER					
ELN	238	Microprocessors	2	4	4
ELN	260	Communication Electronics	2	4	4
ELN	270	Consumer Electronics	2	4	4
ELN	274	Industrial Electronics	2	4	4
ELN	280	Electronic Troubleshooting	2	4	4
			10	20	20
		TOTAL HOURS	70	65	99

*MAT 201 (Analytical Geometry and Calculus II) suggested.
**MAT 202 (Analytical Geometry and Calculus III) suggested.

FOOD SERVICE MANAGEMENT(T-074)

CAREER INFORMATION

The food service management curriculum is designed for the training of students in the supervisory or "middle management" level in food service with particular emphasis on institutional food service. This program offers a second-year option in supervision-management to the student completing the entire curriculum and a one-year option in food preparation specialist to the student completing the first-year requirements.

In addition to students having a sound foundation in the science of food preparation and service, they will develop an understanding of the basic science and principles of quantity food preparation, an appreciation of accuracy and the use of standards in production, an increased knowledge of the space and equipment requirements for quantity food production, and service operations of various types, as well as some ability to evaluate the effectiveness of the operation of a food service department. Also, students will understand pricing and cost controls, principles of nutrition as applied to institutional menu planning, safe methods of work performance, and an appreciation of sanitation and hygiene in a food service operation.

The career opportunities available to a graduate of the food service management curriculum are executive chef, food science supervisor, food service manager, food buyer, unit manager, and chef-manager. Employment opportunities are available in hospitals, nursing homes, childcare centers, college and university food services, school food services, industrial cafeterias, private clubs, airline food services, food processing manufacturers, food service control companies, and commercial restaurants.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
FSO	101	Orientation to Food Service	1	0	1
FSO	102	Food Preparation I	3	3	4
FSO	103	Equipment Layout and Design	3	0	3
FSO	104	Sanitation and Safety	3	0	3
PSY	206	Interpersonal Skills	3	0	3
SOC	201	Introduction to Sociology	3	0	3
			16	3	17
WINTER QUARTER					
ENG	101	Grammar and Composition	2	3	3
BUS	120	Accounting I	3	2	4
FSO	106	Nutrition and Menu Planning I	3	0	3
FSO	107	Baking I	3	3	4
FSO	112	Food Preparation II	3	3	4
			14	11	18
SPRING QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
BUS	233	Personnel Management	3	0	3
FSO	109	Production Management	3	0	3
FSO	122	Food Preparation III	3	3	4
FSO	177	Baking II	3	3	4
Elective			3	0	3
			18	6	20

		COURSE TITLE	CLASS	LAB	CREDIT
SUMMER QUARTER					
FSO	110	Supervised Clinical Education	0	24	8
FSO	111	Seminar	2	0	2
			2	24	10
FALL QUARTER					
ENG	102	English Composition	3	0	3
MAT	110	Business Math	5	0	5
FSO	202	Food Preparation IV	3	3	4
FSO	203	Organization and Management	3	0	3
FSO	204	Food Purchasing and Cost Control	3	0	3
			17	3	18
WINTER QUARTER					
ENG	104	Report Writing	3	0	3
FSO	205	Nutrition and Menu Planning II	3	0	3
FSO	206	Financial Management	3	0	3
FSO	212	Food Preparation V	3	3	4
BUS	272	Principles of Supervision	3	0	3
BUS	195	Small Business Management	3	0	3
			18	3	19
SPRING QUARTER					
FSO	210	Supervised Clinical Education	0	24	8
FSO	211	Seminar	2	0	2
			2	24	10
SUMMER QUARTER					
FSO	207	Food Merchandising	3	0	3
Elective			3	0	3
			6	0	6
		TOTAL HOURS	93	74	118

FURNITURE PRODUCTION TECHNOLOGY (T-075)

(DEGREE OPTION)

CAREER INFORMATION

The graduate of this program may serve in many areas of the local furniture industry. These areas would include assistant to the plant manager, methods improvement, quality control inspector, cost estimator, product engineer trainee, production control trainee, material control supervisor, department supervisor, production scheduling and control, material testing, employee trainer, and industry safety.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
T-MAT	100	Mathematics	3	0	3
DFT	101F	Technical Drafting	2	6	4
FUR	104	Characteristics of Wood	3	0	3
FUR	108	Production Equipment I	4	0	4
			14	9	17
WINTER QUARTER					
DFT	102F	Technical Drafting	2	6	4
FUR	109	Production Equipment II	4	0	4
FUR	102	Construction & Billing I	1	3	2
FUR	112	Routing, Scheduling and Process	2	2	3
			9	11	13
SPRING QUARTER					
FUR	103	Construction & Billing II	1	3	2
FUR	106	Abrasive Materials & Glues	2	2	3
ISC	203	Motion Study	2	2	3
PSY	206	Interpersonal Skills	3	0	3
ISC	102	Industrial Safety	3	0	3
			11	7	14
SUMMER QUARTER					
BUS	285	Cost Records and Estimates	2	0	2
ISC	103	ProductionControl	1	3	2
ISC	201	Industrial Organization and Management	3	0	3
ISC	202	Quality Control	3	0	3
ISC	207	Foremanship Supervision	3	0	3
FUR	107	Finishing Methods and Material	2	2	3
			14	5	16
FALL QUARTER					
ENG	102	English Composition	3	0	3
DFT	103F	Technical Drafting	2	6	4
BUS	101	Introduction to Business	5	0	5
SPH	101	Fundamentals of Speech	3	0	3
			13	6	15
WINTER QUARTER					
BUS	272	Princ. of Supervision	3	0	3
ENG	104	Report Writing	3	0	3
ECO	201	Princ. of Economics I	3	0	3
Elective			3	0	3
			12	0	12

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
ISC	204	Value Analysis	3	0	3
Elective			3	0	3
Elective			3	0	3
Elective			3	0	3
			12	0	12
		TOTAL HOURS	85	38	99

INDUSTRIAL MAINTENANCE ENGINEER (T-119)

CAREER INFORMATION

As modern industry grows and becomes more sophisticated, there is an increasing demand for skilled personnel trained to install and maintain industrial, electrical, and mechanical equipment. Qualified industrial maintenance engineers are needed by industries and manufacturing companies to perform preventative maintenance and repair on all types of electrical and mechanical equipment.

The first year of the industrial maintenance engineer program consists of a core of courses to provide the student with a general background in the understanding of electrical-mechanical systems and the practical application of skills needed in the field. Special emphasis is given to the use of blueprints and sketches, hand tools and metal-working machines, and measuring and testing instruments. During the second year, the program offers two options of specialization. The mechanical option includes a concentration of machine shop and related courses while the electrical option includes mostly electrical and electronics courses. Graduates of either option in the industrial maintenance engineering program receive an associate in applied science degree.

Reading level of 10.0 or RDG 093 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
T-MAT	101	Technical Mathematics	5	0	5
DFT	113	Blueprint Reading: Mechanical	0	3	1
ELC	100	Electronic Fundamentals: Survey	3	0	3
MEC	101	Machine Processes	1	5	3
ISC	102	Industrial Safety	3	0	3
			12	8	15
WINTER QUARTER					
T-MAT	102	Technical Mathematics (Algebra)	5	0	5
DFT	114	Blueprint Reading: Mechanical	0	3	1
ENG	101	Grammar and Composition	2	3	3
MEC	102	Machine Processes	1	5	3
PHY	101	Physics: Work, Energy, Power	3	2	4
			11	13	16

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
T-MAT	103	Technical Mathematics (Trigonometry)	5	0	5
DFT	119	Blueprint Reading: Electrical	0	3	1
ELC	112	AC/DC Theory	2	6	4
WLD	120	Welding, Oxyacetylene	1	3	2
PHY	102	Physics: Properties of Matter	3	2	4
			11	14	16
SUMMER QUARTER					
PHY	103	Physics: Electro/Mech.	3	2	4
ENG	102	Grammar and Composition	3	2	3
WLD	121	Arc Welding	1	3	2
ISC	205	Maintenance Management	3	0	3
MEC	235	Hydraulics and Pneumatics	3	3	4
			13	10	16

SECOND YEAR—ELECTRICAL OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
*MEC	237	Control Systems	3	3	4
*PSY	206	Interpersonal Skills	3	0	3
*AHR	101	Air Conditioning and Refrigeration	3	3	4
ELC	113	Industrial Electronic Controls	1	6	3
ELN	124	Electronics Fundamentals	2	4	4
			12	16	18
WINTER QUARTER					
*ENG	104	Report Writing	3	0	3
*ISC	202	Quality Control	3	0	3
EDP	104	Introduction to Data Systems	3	2	4
ELC	119	AC/DC Machine Controls	2	6	4
ELN	134	Intermediate Electronics	2	4	4
			13	12	18
SPRING QUARTER					
ELC	115	National Electrical Code	3	0	3
ELC	121	Electrical Trouble Shooting	2	3	3
ELN	224	Advanced Electronics	2	4	4
ELN	234	Digital Electronics	2	4	4
			9	11	14
		TOTAL HOURS	81	85	113

*Course common to mechanical option.

SECOND YEAR—MECHANICAL OPTION

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
+ MEC	237	Control Systems	3	3	4
+ PSY	206	Interpersonal Skills	3	0	3
+ AHR	101	Air Conditioning and Refrigeration	3	3	4
MEC	103	Machine Processes	1	6	3
MEC	210	Ferrous Metallurgy	3	3	4
			13	15	18
WINTER QUARTER					
+ ENG	104	Report Writing	3	0	3
+ ISC	202	Quality Control	3	0	3
MEC	114	Shop Practice	1	6	3
MEC	298	Mechanical Problem Solving	2	3	3
MEC	211	Non-Ferrous Metallurgy	3	3	4
			12	12	16
SPRING QUARTER					
DFT	115	Blueprint Reading: Mechanical	0	3	1
MEC	207	Tool Making	3	3	4
MEC	122	Production Procedures	4	3	5
MEC	299	General Maintenance and Repair	2	3	3
			9	12	13
		TOTAL HOURS	81	85	110

+ Course common to electrical option.

LIBRARY MEDIA TECHNICAL ASSISTANT (T-080)

CAREER INFORMATION

Graduates from this program function in a supportive role, understand basic library organization, and accept the realities of library or media work under the general supervision of a librarian or media specialist. They may be expected to develop and maintain a working knowledge of policies, practices, and resources of any given library or information center. They have acquired a proficiency of instructional materials and the operation of equipment and its daily maintenance.

As assistants, graduates are not prepared to assume administrative or teaching responsibilities, but they do learn to use the basic terminology and to supervise technical and clerical aspects of all library procedures and routines. The occupational aspect of the program trains people for duties related to such functions as the mechanical preparation of library and audiovisual material; the physical maintenance of both print and non-print materials, files, and equipment; circulation work; acquisitions work; cataloging (except original cataloging); and work involving direct public assistance at information and ready-reference service desks.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	102	Typewriting	2	3	3
EDM	101	Introduction to Libraries and Information Centers	3	0	3
Elective		(Social Science)	3	0	3
			15	6	17
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	103	Typewriting	2	3	3
EDM	103	Library-Media Resources (Ref.)	3	0	3
PSY	206	Interpersonal Skills	3	0	3
MUS	101	Music Appreciation	3	0	3
			14	3	15
SPRING QUARTER					
ENG	103	Introduction to Literature	3	0	3
EDP	104	Introduction to Data Processing	3	2	4
EDM	102	Library Processes I (Selection)	3	0	3
EDM	105	AV Equipment and Production	3	2	4
ART	101	Art Appreciation	3	0	3
			15	4	18
FALL QUARTER					
EDM	201	Library Processes II (Cataloging)	3	2	4
EDM	202	Library Media Procedures (Circulation)	3	2	4
BUS	120	Accounting	3	2	4
POL	203	Government—State and Local	3	0	3
Elective		(Humanities)	3	0	3
			15	6	18
WINTER QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
EDM	203	Practicum	2	6	4
Elective		(Humanities)	3	0	3
Elective		(Social Science)	3	0	3
Elective			3	0	3
			14	6	16
SPRING QUARTER					
GEO	202	Regional Geography	3	0	3
SCI	100	Natural Environment	3	0	3
EDM	204	Practicum	2	6	4
EDM	206	Survey of Children's Literature	3	0	3
Elective			3	0	3
			14	6	16
		TOTAL HOURS	87	31	100

NUCLEAR MEDICINE TECHNOLOGY (T-104)

CAREER INFORMATION

Since the field of nuclear medicine is developing so rapidly, there is a growing demand for well-trained, highly motivated, adaptable men and women in it.

Manpower studies indicate the need to train more than 1,000 additional technologists in the field each year, and this number may be even larger with the continuing development and application of nuclear medicine technology. The major trends in nuclear medicine which may affect the number of technologists needed over the next few years include the use of faster scanners and cameras for imaging procedures, increased number of dynamic function studies, the development of materials labeled with radionuclides with shorter half-lives, and the use of more complex radio-pharmaceuticals and more automated data-handling facilities, including computers.

With the increasing demand for nuclear medicine services, opportunities are available in large and small hospitals, both public and private. In addition, the armed forces both train and employ nuclear medicine technologists. Also, the growing number of NMT training programs in hospitals, community colleges, and technical institutes provide openings for instructors in nuclear medicine technology.

Graduates of the nuclear medicine technology program will receive an associate in applied science degree and will be eligible to take the national registry exam. Certified radiologic technologists, associate degree nurses, and medical technologists may enter the program as advanced students for a 12-month certificate course. Advanced students must demonstrate competence in chemistry and physics.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. Students must have a "C" average in all nuclear medicine courses. For specific policies concerning the nuclear medicine program, see the student handbook or the college registrar.

		COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER					
RDT	101	Introduction to Radiologic Technology	2	0	2
BIO	125	Terminology I	1	0	1
RDT	102	Basic Patient Care	3	3	4
RDT	103	Radiation Protection	1	0	1
			7	3	8
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	101	College Math	3	0	3
BIO	105	Basic Life Science	4	2	5
NMT	101	Nuclear Medicine Technology I	1	0	1
BIO	126	Terminology II	1	0	1
			11	5	13

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
ENG	102	Composition	3	0	3
BIO	108	Human Anatomy and Physiology I	3	2	4
PHY	107	Physics	3	2	4
NMT	102	Nuclear Medicine Technology II	1	0	1
BIO	208	Introduction to Study of Disease	3	0	3
			13	4	15
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
BIO	109	Human Anatomy and Physiology II	3	2	4
PHY	108	Physics	3	2	4
PSY	201	General Psychology	3	0	3
NMT	103	Nuclear Medicine Technology III	1	0	1
RDT	115	Radiographic Processing	2	0	2
			15	4	17
SUMMER QUARTER					
PED	185	First Aid and Safety	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
BIO	209	Radiobiology	3	0	3
NMT	104	Nuclear Medicine Technology IV	2	0	2
NMT	129	Practicum I	0	12	4
CHM	101	General Chemistry I	3	3	4
			14	15	19
FALL QUARTER					
NMT	116	Nuclear Physics	2	0	2
NMT	269	Practicum II	0	24	8
NMT	111	Principles of Nuclear Medicine I	2	0	2
NMT	255	Introduction to Radioimmunoassay	1	2	2
NMT	256	Nuclear Medicine Chemistry	3	2	4
			8	28	18
WINTER QUARTER					
NMT	274	Practicum III	0	24	8
NMT	230	Nuclear Medicine Instrumentation I	3	2	4
NMT	221	Principles of Nuclear Medicine II	2	0	2
NMT	223	Radiopharmaceuticals I	2	0	2
NMT	117	Health Physics	1	0	1
NMT	268	Open Lab Practicum I	0	6	2
			8	32	19

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
NMT	279	Practicum IV	0	24	8
NMT	240	Nuclear Medicine Instrumentation II	3	2	4
NMT	241	Principles of Nuclear Medicine III	2	0	2
NMT	233	Radiopharmaceuticals II	2	0	2
NMT	273	Open Lab Practicum II	0	6	2
NMT	289	Radiobiology	1	0	1
			8	32	19
SUMMER QUARTER					
NMT	284	Practicum V	0	24	8
NMT	251	Principles of Nuclear Medicine IV	2	0	2
NMT	290	Nuclear Medicine Technology Seminar	2	0	2
NMT	278	Open Lab Practicum III	0	6	2
			4	30	14
		TOTAL HOURS	88	153	142

NURSING—ASSOCIATE DEGREE (T-059)

(DEGREE OPTION)

CAREER INFORMATION

Graduates of accredited programs of nurse education are prepared to function as beginning practitioners in a variety of situations, including hospitals; nursing homes; clinics; doctors', dentists', and veterinarians' offices; industry; and in some instances, public health facilities.

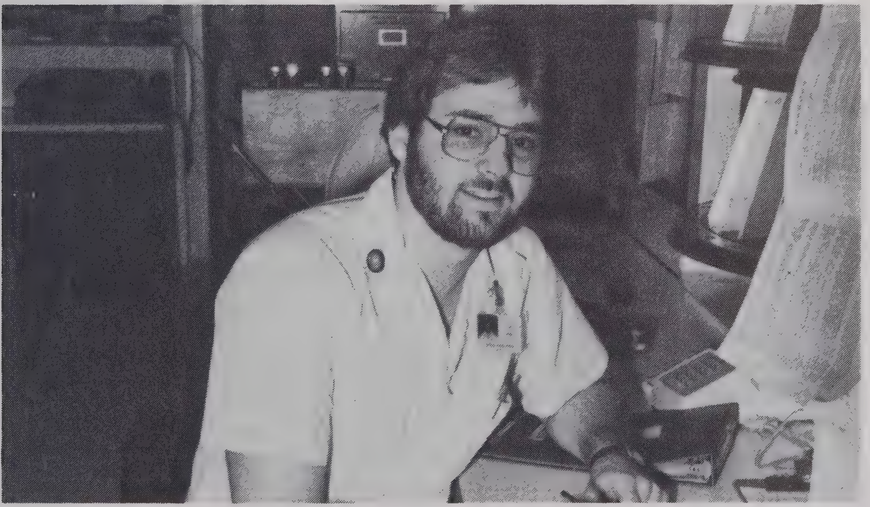
A student enrolled in the associate degree nursing program has career options at two points during the training. Upon successful completion of the first year, the student is prepared to practice as a practical nurse and is eligible for practical nurse licensing examinations. The student is also eligible to apply for the second year of the nursing program.

Upon successful completion of the second year, the student is prepared to practice with technical competence, is eligible for registered nurse licensing examinations, and qualifies for an associate degree in nursing. These examinations are administered by the North Carolina Board of Nursing and are given twice each year, in February and July.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the nursing program, see the student handbook or the college registrar.

FIRST LEVEL—PRACTICAL NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
BIO	105	Basic Life Science	4	2	5
PSY	201	General Psychology	3	0	3
NUR	101	Fundamentals of Nursing	6	9	9
NUR	102	Nutrition	3	0	3
			18	14	23
WINTER QUARTER					
PSY	210	Human Growth and Development	3	0	3
NUR	103	Pharmacology	3	0	3
NUR	104	Medical-Surgical I	8	0	8
NUR	105	Medical-Surgical I Lab	0	15	5
BIO	135	Microbiology	2	2	3
			16	17	22
SPRING QUARTER					
SOC	201	Introduction to Sociology	3	0	3
NUR	106	Maternal-Infant Health I	4	0	4
NUR	107	Maternal-Infant Health I Lab	0	6	2
NUR	108	Child-Health Nursing I	4	0	4
NUR	109	Child-Health Nursing I Lab	0	6	2
			11	12	15
SUMMER QUARTER					
NUR	110	Medical-Surgical II	6	0	6
NUR	111	Medical-Surgical II Lab	0	18	6
NUR	112	Seminar I	3	0	3
			9	18	15



SECOND LEVEL—REGISTERED NURSING

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
BIO	108	Human Anatomy and Physiology I	3	2	4
NUR	200	Psychiatric Nursing	6	0	6
NUR	201	Psychiatric Nursing Lab	0	9	3
PSY	213	Abnormal Psychology	3	0	3
BIO	135*	Microbiology			
			12	11	16
SPRING QUARTER					
BIO	109	Human Anatomy and Physiology II	3	2	4
NUR	202	Maternal-Infant Health II	4	0	4
NUR	203	Maternal-Infant Health II Lab	0	6	2
NUR	204	Child Health Nursing II	4	0	4
NUR	205	Child Health Nursing II Lab	0	6	2
			11	14	16
SUMMER QUARTER					
ENG	102	English Composition	3	0	3
NUR	206	Medical-Surgical III	6	0	6
NUR	207	Medical-Surgical III Lab	0	15	5
			9	15	14
FALL QUARTER					
ENG	104 +	Report Writing	3	0	3
NUR	208	Medical-Surgical IV	6	0	6
NUR	209	Medical-Surgical IV Lab	0	18	6
NUR	210	Seminar II	3	0	3
			12	18	18
		TOTAL HOURS	98	119	139

*BIO 135 required for those not meeting the requirement their first year.
+ ENG 103 may be substituted for ENG 104.

OCCUPATIONAL THERAPY ASSISTANT (T-142)

CAREER INFORMATION

Occupational therapy is a health profession providing services to people whose lives have been affected by impairment or pathology, such as cerebrovascular accident (stroke); arthritis; cerebral palsy; mental retardation; spinal cord injury; amputation; trauma; burns; visual, auditory, and speech disorders; or psychiatric problems. Occupational therapy serves in a variety of settings, including hospitals and clinics, rehabilitation facilities, long-term care facilities, sheltered workshops, day-care centers, schools, camps, private homes, and community agencies and centers.

The term "occupation" means being occupied in meaningful day-to-day activities including work, play, and leisure. Occupational therapy translates the ability to move into activities that are personally fulfilling.

The certified occupational therapy assistant (COTA) is one who has completed an occupational therapy assistant curriculum and passed national certification examination by the American Occupational Therapy Association. The occupational therapy assistant program at Caldwell Community College and Technical Institute consists of six quarters for a total of 107 quarter hours to receive an A.A.S. degree. The program provides excellent opportunity for employment as well as for continuing one's education in the field of occupational therapy.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. For specific policies concerning the OTA program, see the student handbook, the college registrar, or the OTA coordinator.

		COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER					
OTA	101	Orientation to Prog. and Intro. to Occupational Therapy (Field Exp.)	3	3	4
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
PSY	201	General Psychology	3	0	3
BIO	105	Basic Life Science	4	2	5
OTA	102	Occupational Therapy Theory I	3	1	3
OTA	106	Occupational Therapy Media	1	4	3
			13	10	17
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BIO	108	Human Anatomy and Physiology I	3	2	4
PSY	210	Human Growth and Development	3	0	3
PSY	206	Interpersonal Skills	3	0	3
OTA	104	Occupational Therapy Theory II	3	2	4
			15	4	17
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
PSY	213	Abnormal Psychology	3	0	3
PSY	215	Introduction to Exceptional Individuals	3	0	3
BIO	208	Introduction to Study of Disease	3	0	3
SOC	201	Introduction to Sociology	3	0	3
OTA	105	Occupational Therapy Theory III	3	2	4
			18	2	19

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
PED	212	Kinesiology	3	2	4
OTA	103	Major Crafts and Their Application	1	4	3
OTA	202	Occupational Therapy Theory IV	3	3	4
Elective			3	0	3
			13	9	17
WINTER QUARTER					
PED	185	First Aid and Safety	3	0	3
REC	103	Recreation Programming	3	0	3
OTA	201	The Mature Years-Gerontology	3	2	4
OTA	203	Occupational Therapy Theory V	3	2	4
HEA	200	Allied Health Management Procedures	3	0	3
Elective			3	0	3
			18	4	20
SPRING QUARTER					
OTA	204	Occupational Therapy Fieldwork II	0	40	13
SUMMER QUARTER					
OTA	205	Occupational Therapy Fieldwork II (optional internship)	0	40	13
		TOTAL HOURS	80	72	107

PARALEGAL TECHNOLOGY (T-120)

CAREER INFORMATION

The paralegal technology curriculum is designed to train individuals to work under the general direction of lawyers, to relieve lawyers of routine matters, and to assist them in the conduct of more complicated and difficult tasks. The legal technician should be capable of doing independent legal work under the supervision of a lawyer and search out information and court facts for the lawyer. Training will include general subjects such as English, accounting, and psychology, as well as specialized legal courses such as court systems, laws, and techniques of investigation.

Graduates of the paralegal technology program should be able to directly assist a lawyer or group of lawyers in most facets of law, but they must always work under the supervision of a lawyer. The legal technician will not be qualified to give legal advice, enter into courtroom procedure, or be involved in litigation except as an assistant to the lawyer. Employment opportunities are available in public and private firms and with individual lawyers.

Reading level of 12.0 or RDG 101 required for graduation.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
LEG	101	Introduction to Paralegalism	3	0	3
LEG	135	Legal Systems and Litigation Preparation	5	0	5
LEG	113	Family Law I	3	2	4
			18	5	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	115	Business Law I	3	0	3
LEG	114	Family Law II	3	2	4
LEG	116	Contract Law	4	0	4
LEG	140	Bankruptcy and Collection	4	0	4
			17	2	18
SPRING QUARTER					
BUS	116	Business Law II	3	0	3
LEG	132	Legal Research	3	6	6
ENG	104	Report Writing	3	0	3
LEG	117	Torts	4	0	4
Elective			3	0	3
			16	6	19
FALL QUARTER					
BUS	120	Accounting I	3	2	4
BUS	102	Typing I	2	3	3
LEG	214	Property I	3	0	3
LEG	204	Investigation	5	0	5
LEG	217	Elements of Criminal Law and Procedures	4	0	4
			17	5	19
WINTER QUARTER					
SPH	101	Speech	3	0	3
LEG	215	Property II	3	0	3
LEG	227	Estate Management I	3	0	3
LEG	225	Law Office Management	3	0	3
LEG	218	Civil Procedures and Discovery	4	0	4
Elective			3	0	3
			19	0	19

		COURSE TITLE	CLASS	LAB	CREDIT
SPRING QUARTER					
LEG	216	Property II	3	0	3
LEG	228	Estate Management II	3	0	3
LEG	250	Clinical Practice	1	12	5
Elective			3	0	3
Elective			3	0	3
			13	12	17
		TOTAL HOURS	100	30	112

PARALEGAL TECHNOLOGY

*Part-Time Curriculum**

BUS	102	Typing	2-3-3
BUS	115	Business Law I	3-0-3
BUS	116	Business Law II	3-0-3
BUS	120	Accounting I	3-2-4
ENG	101	Grammar and Composition	2-3-3
ENG	102	English Composition	3-0-3
ENG	104	Report Writing	3-0-3
LEG	101	Introduction to Paralegalism	3-0-3
LEG	113	Family Law I	3-2-4
LEG	114	Family Law II	3-2-4
LEG	116	Contract Law	4-0-4
LEG	117	Torts	4-0-4
LEG	132	Legal Research	3-6-6
LEG	135	Legal Systems and Litigation Preparations	5-0-5
LEG	140	Bankruptcy and Collection	4-0-4
LEG	204	Investigation	5-0-5
LEG	214	Property I	3-0-3
LEG	215	Property II	3-0-3
LEG	216	Property III	3-0-3
LEG	217	Elements of Criminal Law and Procedures	4-0-4
LEG	218	Civil Procedures and Discovery	4-0-4
LEG	225	Law Office Management	3-0-3
LEG	227	Estate Management I	3-0-3
LEG	228	Estate Management II	3-0-3
LEG	250	Clinical Practice	1-12-5
MAT	110	Business Math	5-0-5
SPH	101	Speech	3-0-3

*Usually evenings.

PUBLIC ADMINISTRATION (T-146)

Evening Program Only

CAREER INFORMATION

This career program is designed to prepare individuals for mid-management level positions in state and local governments and non-profit organizations. It is geared to prepare individuals currently employed in the public sector for advancement opportunities, as well as to provide for those persons desiring to prepare for a future career in governmental or non-profit organizational agencies.

The program is designed to enable the students to enter the public sector with skills that make him/her productive immediately. It provides the career employee with motivation and advantages for further advancement in the career service of local government.

The program offers the student an opportunity to begin or to continue a career in the public administration with an associate in applied science degree or to take courses for personal enrichment.

Reading level of 12.0 or RDG 101 required for graduation.

BUS	115	Business Law	3-0-3
BUS	119	Introduction to Public Administration	3-0-3
BUS	120*	Principles of Accounting	3-2-4
BUS	121*	Principles of Accounting	3-2-4
BUS	122	Principles of Accounting	3-2-4
BUS	233	Personnel Management	3-0-3
BUS	238	Problems of Public Administration	3-0-3
BUS	240	Public Finance	3-0-3
BUS	272	Principles of Supervision	3-0-3
BUS	277	Application in Public Administration I	2-6-4
BUS	278	Application in Public Administration II	2-6-4
BUS	279	Internship in Public Administration	1-18-7
BUS	282*	Governmental Accounting	3-0-3
ECO	201*	Principles of Economics I	3-0-3
ECO	202*	Principles of Economics II	3-0-3
EDP	104	Introduction to Data Processing	3-2-4
ENG	101	Grammar and Composition	2-3-3
ENG	102	English Composition	3-0-3
ENG	104	Report Writing	3-0-3
POL	201	American Federal Government	3-0-3
POL	203	Government—State and Local	3-0-3
PSY	201	General Psychology	3-0-3
PSY	202	General Psychology	3-0-3
SOC	101	Community Resources	3-0-3
SOC	201	Introduction to Sociology	3-0-3
SOC	203	Contemporary Problems and Social Issues	3-0-3

SPH	101	Fundamentals of Speech	3-0-3
Electives			12-0-12
		TOTAL HOURS	88 41 103

*In addition to the electives, proficiency credit may be substituted for up to 26 hours in the areas identified.

RADIOLOGIC TECHNOLOGY—RADIOGRAPHY (T-061)

CAREER INFORMATION

The advance of scientific knowledge in the medical field and the increase in services offered by hospitals and health centers have greatly increased the need for competent radiographers. The radiographers perform an important function in the rapidly growing branch of medicine known as radiology. Radiographers are support personnel for radiologists, and they specialize in the use of X-rays and other forms of ionizing radiation.

The radiographer should like people and be able to attend the sick and disabled with tact and sympathy. He/she should be dependable, accurate, and determined to continue with education beyond certification to keep up with new developments in the field.

The program in radiologic technology offered by Caldwell Community College and Technical Institute provides an opportunity for immediate employment as well as for continuing one's education at a senior institution or in programs of nuclear medicine and radiation therapy. Graduates of the associate in applied science degree program are eligible to take the American Registry in Radiologic Technology examination and, upon successful completion of this test, may become a registered radiographer.

Satisfactory placement scores in reading, math, and English must be achieved prior to entry into this program. The radiologic technology program is a 24-month program. A grade of "C" must be maintained in all radiology courses. The clinical technique courses will be of 12 weeks duration.

		COURSE TITLE	CLASS	LAB	CREDIT
EARLY FALL QUARTER					
RDT	101	Introduction to Radiologic Technology	2	0	2
BIO	125	Medical Terminology I	1	0	1
RDT	102	Basic Patient Care	3	3	4
RDT	103	Radiation Protection I	1	0	1
			7	3	8
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	101	College Mathematics	3	0	3
BIO	105	Basic Life Science	4	2	5
RDT	109	Introduction to Clinical Technique	0	6	2
RDT	110	Introduction to Radiographic Technique	1	2	2
RDT	111	Radiographic Procedures I: Extremities	6	2	7
BIO	126	Medical Terminology II	1	0	1
			17	15	23
WINTER QUARTER					
ENG	102	English Composition	3	0	3
PHY	107	Physics	3	2	4
BIO	107	Human Anatomy and Physiology -Rad.	3	2	4
RDT	112	Radiographic Evaluation	1	2	2
RDT	113	Radiographic Procedures II: Skull and Spine	6	2	7
RDT	114	Clinical Technique I	0	15	5
			16	23	25
SPRING QUARTER					
BIO	109	Human Anatomy and Physiology II	3	2	4
PHY	108	Physics	3	2	4
RDT	115	Radiographic Processing	1	2	2
RDT	116	Radiographic Procedures III: Trauma and GI Procedures	4	0	4
RDT	117	Clinical Technique II	0	24	8
			11	30	22
SUMMER QUARTER					
RDT	118	Radiographic Procedures IV—Urinary and Reproductive Radiography	1	2	2
BIO	209	Radiation Biology	3	0	3
PED	185	First Aid and Safety	3	0	3
RDT	119	Clinical Technique III	0	24	8
RDT	120	Imaging Modalities	3	0	3
			10	26	19

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
RDT	210	Radiographic Equipment and Accessories	3	0	3
RDT	211	Clinical Technique IV	0	24	8
RDT	212	Radiographic Procedures V: Angiography	3	0	3
ENG	104	Report Writing	3	0	3
			12	24	20
WINTER QUARTER					
BIO	208	Introduction to Study of Disease	3	0	3
PSY	201	General Psychology	3	0	3
RDT	213	Principles of Exposure I	3	0	3
RDT	214	Clinical Technique V	0	24	8
RDT	215	Radiographic Procedures VI: Pediatric and Dental Radiography	3	0	3
			12	24	20
SPRING QUARTER					
SOC	201	Introduction to Sociology	3	0	3
RDT	216	Principles of Exposure II	2	2	3
RDT	217	Clinical Technique VI	0	24	8
RDT	218	Radiographic Procedures VII: Special View of Whole Skeleton	2	0	2
Elective			3	0	3
			10	26	19
SUMMER QUARTER					
HEA	200	Allied Health Management	3	0	3
RDT	219	Radiation Protection II	2	0	2
RDT	220	Quality Control Seminar	2	2	3
RDT	221	Clinical Technique VII	0	24	8
Elective			3	0	3
			10	26	19
		TOTAL HOURS	105	197	175

RECREATION LEADERSHIP (THERAPEUTIC AND COMMUNITY) (T-083)

CAREER INFORMATION

The graduate of the recreation leadership curriculum may enter a variety of careers in the field of recreation. In most situations the leader will work under the supervision of a professional recreator.

The demand for recreation leaders surely will increase as more and more attention is focused on leisure time. The recreation leader will need the skills and background knowledge to work as an activity director in sports, arts, and crafts or to supervise and conduct programs for various recreation facilities in public, private, commercial, industrial, and institutional settings.

Students enrolled in the recreation curriculum have the option of specializing in a particular area of recreation. The two major areas of concentration are recreational therapy and community recreation. A considerable proportion of the offered courses within the curriculum will transfer to four year institutions with the number of transferred hours dependent on each college.

The therapeutic option is designed to train leaders for health agencies serving the ill and handicapped. Students interested in therapeutic recreation concentrate their field work experiences with health agencies such as institutions for the mentally ill, mentally retarded, correctional centers, physically handicapped, and day care centers.

The community recreation option is designed to train recreation leaders for public, private, and commercial recreation agencies. The community recreation specialty requirements are fulfilled with municipal departments, YMCA's, YWCA's, and private and commercial recreation establishments.

Satisfactory placement scores in reading, math, and English must be achieved prior to full-time admission into this program.

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
RDG	101	Reading	1	3	2
ENG	101	Grammar and Composition	2	3	3
PSY	201	General Psychology	3	0	3
PED	180	Personal& Community Health	3	0	3
REC	101	Intro. to Recreation Services	5	0	5
ART	127	Creative Crafts I	1	4	3
Elective		(Physical Education)	0	2	1
			15	12	20
WINTER QUARTER					
ENG	102	English Composition	3	0	3
PSY	215	Intro. to Exceptional Individuals	3	0	3
PED	185	First Aid and Safety	3	0	3
MUS	110	Recreational Music	3	0	3
REC	103	Recreation Programming	3	0	3
Elective		(Physical Education)	0	2	1
Elective			3	0	3
			18	2	19
SPRING QUARTER					
ENG	104	Report Writing	3	0	3
EDM	104	Audiovisual Equipment	3	0	3
DRA	110	Recreational Drama	1	4	3
REC	102	Recreation& Special Populations	3	0	3
REC	105	Areas and Facilities	3	0	3
REC	106	Camping	5	0	5
Elective		(Physical Education)	0	2	1
			18	6	21

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
SOC	201	Introduction to Sociology	3	0	3
SPH	101	Fundamentals of Speech	3	0	3
REC	215	Dance	1	4	3
REC	104*	Rehabilitation Services	3	0	3
or Elective					
REC	208	Field Work	0	6	2
Elective		(Physical Education)	0	2	1
			10	12	15
WINTER QUARTER					
REC	121	Social Recreation	3	0	3
REC	202	Recreation Leadership	3	0	3
REC	209	Field Work	0	9	3
Elective		(Physical Education)	0	2	1
Elective		(Social Science)	3	0	3
Elective			3	0	3
			12	11	16
SPRING QUARTER					
REC	203	Water Sports	1	4	3
REC	205	Outdoor Education	3	0	3
REC	210	Field Work	0	15	5
REC	211	Recreation Seminar	1	0	1
Elective		(Physical Education)	0	2	1
			5	21	13
		TOTAL HOURS	78	64	104

*REC 104 is recommended for persons interested in therapeutic recreation.

SECRETARIAL SCIENCE (T-030) (T-032)

CAREER INFORMATION

The graduates of this program should have a knowledge of the terminology peculiar to the major area, skill in dictation, and accurate transcription of all correspondence, memoranda, and reports. The graduate may be employed as a stenographer or secretary in a variety of offices in businesses such as insurance companies, banks, marketing institutions, financial firms, doctors' offices, medical and health institutions, and government agencies.

Reading level of 12.0 or RDG 101 required for graduation.

EXECUTIVE SECRETARY OPTION (T-030)

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101*	Grammar and Composition	2	3	3
MAT	110*	Business Math	5	0	5
BUS	101*	Introduction to Business	5	0	5
BUS	102*	Typewriting	2	3	3
BUS	106	Shorthand	2	3	3
			16	9	19
WINTER QUARTER					
ENG	102*	English Composition	3	0	3
BUS	103*	Typewriting	2	3	3
BUS	107	Shorthand	2	3	3
BUS	110*	Office Machines	2	2	3
BUS	115*	Business Law	3	0	3
			12	8	15
SPRING QUARTER					
EDP	104	Introduction to Data Systems	3	2	4
BUS	104*	Typewriting	2	3	3
BUS	108	Shorthand	2	3	3
BUS	134*	Personal Development	3	0	3
BUS	214*	Secretarial Procedures	3	2	4
			13	10	17
FALL QUARTER					
SPH	101*	Fundamentals of Speech	3	0	3
BUS	120*	Principles of Accounting	3	2	4
BUS	205*	Word Processing I	2	3	3
BUS	206E	Dictation and Transcription	3	2	4
Elective			3	0	3
			14	7	17

		COURSE TITLE	CLASS	LAB	CREDIT
WINTER QUARTER					
ENG	105*	Business Communication	3	0	3
BUS	121	Principles of Accounting	3	2	4
BUS	207E	Dictation and Transcription	3	2	4
BUS	211*	Word Processing II	0	6	2
Elective			3	0	3
			12	10	16
SPRING QUARTER					
BUS	208E	Dictation and Transcription	3	2	4
BUS	247*	Business Insurance	3	0	3
BUS	271	Office Management	3	0	3
Elective			3	0	3
Elective			3	0	3
			15	2	16
		TOTAL HOURS	82	46	100

*A certificate is awarded for satisfactory completion of these courses.

MEDICAL SECRETARY OPTION (T-032)

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
ENG	101	Grammar and Composition	2	3	3
MAT	110	Business Math	5	0	5
BUS	102	Typewriting	2	3	3
BUS	106	Shorthand	2	3	3
BIO	115	Human Anatomy for Medical Secretaries	3	0	3
			14	9	17
WINTER QUARTER					
ENG	102	English Composition	3	0	3
BUS	103	Typewriting	2	3	3
BUS	107	Shorthand	2	3	3
BUS	110	Office Machines	2	2	3
BUS	183M	Terminology and Vocabulary I	3	0	3
			12	8	15
SPRING QUARTER					
EDP	104	Intro. to Data Systems	3	2	4
BUS	104	Typewriting	2	3	3
BUS	108	Shorthand	2	3	3
BUS	214	Secretarial Procedures	3	2	4
BUS	284M	Terminology and Vocabulary II	3	0	3
			13	10	17

		COURSE TITLE	CLASS	LAB	CREDIT
FALL QUARTER					
SPH	101	Fundamentals of Speech	3	0	3
BUS	120	Principles of Accounting	3	2	4
BUS	205	Word Processing I	2	3	3
BUS	206M	Dictation and Transcription	3	2	4
Elective			3	0	3
			14	7	17
WINTER QUARTER					
ENG	105	Business Communication	3	0	3
BUS	121	Principles of Accounting	3	2	4
BUS	207M	Dictation and Transcription	3	2	4
BUS	211	Word Processing II	0	6	2
Elective			3	0	3
			12	10	16
SPRING QUARTER					
BUS	134	Personal Development	3	0	3
BUS	208M	Dictation and Transcription	3	2	4
BUS	247	Business Insurance	3	0	3
BUS	271	Office Management	3	0	3
Elective			3	0	3
			15	2	16
		TOTAL HOURS	80	46	98

COLLEGE TRANSFER ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCE DEGREE PROGRAMS

The associate in arts and associate in science degree programs are designed for persons who are planning to transfer to a four-year college or university. These programs provide opportunities to complete the first two years of general college courses, with some degree of specialization. Caldwell Community College and Technical Institute offers the following associate in art and associate in science degree programs:

- ASSOCIATE IN ART
  - PRE-ART
  - PRE-BUSINESS ADMINISTRATION
  - PRE-BUSINESS EDUCATION
  - PRE-FURNITURE
  - PRE-LIBERAL ARTS
  - PRE-PHYSICAL EDUCATION
  - PRE-PUBLIC ADMINISTRATION
  - PRE-RECREATIONAL
  - PRE-TEACHING (ELEMENTARY AND SECONDARY)
- ASSOCIATE IN SCIENCE
  - PRE-ENGINEERING
  - PRE-SCIENCE

ASSOCIATE IN ARTS

Associate in arts degree candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 96 credit hours with an overall grade point average of 2.0 ("C") or better.

	Quarter Hours Credit
Communication Arts This requirement is met by completing English 101, 102, 103, Speech 101, and Reading 101* or an approved equivalent.	14
Humanities This requirement is met by completing 9 hours from "A" below and 6 hours from "B" below. A. Literature, or Language (Advanced Spanish 211, 212, 213) B. Music Appreciation, Art History, American Music, Philosophy, Religion, Humanities, Studies in Fiction	15
Mathematics This requirement is met by completing Math 101 and 102 or Math 111 or higher	6
Natural Science Biology, Physical Science, Physics, Chemistry, Astronomy, Physical Geography	12

Social Science This requirement is met by completing History 101, 102, 103 and 6 hours from any of the following: Economics, Regional Geography, Political Science, Sociology, Anthropology, Psychology, History.	15
Physical Education†	3
Electives	31
TOTAL QUARTER HOURS	96

Electives may be selected from any area or course which is usually transferable but should be based upon the requirements of the four-year institution to which the student plans to transfer.

*In the interest of helping students succeed in their chosen curriculum, Caldwell Community College and Technical Institute maintains a reading/study skills center for the improvement of reading, encompassing instruction in how to study, how to improve reading comprehension, how to increase vocabulary, and how to increase reading rate. Facilities and equipment are provided for diagnosing individual reading difficulties and for achieving peak skills in reading efficiency and comprehension. Services of the center are available through credit courses to any student who desires to improve his reading ability or whose admission testing scores indicate a need for greater reading efficiency.

†All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the department of physical education. Every effort will be made to involve each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180, Personal and Community Health.

PRE-ART

Pre-art is offered to students with talent and/or interest in the arts. Senior institutions offer majors in painting, sculpture, ceramics, commercial art, interior design, art history, studio art, and art education.

The transfer students will be adequately prepared to move into a specialized art curriculum upon completion of this pre-art program.

Pre-art majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required electives hours: Art 100, Art 102, Art 112, Art 113, Art 114, Art 115, Art 124, Art 201, Art 218, Art 203. Education 201, and Physics 101.

PRE-BUSINESS ADMINISTRATION

The curriculum for the student in business administration includes a broad foundation in liberal arts and professional courses that begins to prepare a person to meet the changing complexities of life and leadership in the business community. Upon receiving the A.A. degree, the student will find a wide range of exciting careers in the business and industrial fields. The graduate's selection of professional studies at the senior institution in business administration, economics, marketing, insurance, management, finance, industrial relations, and many other related fields will lead to meaningful managerial positions in business, government, and nonprofit organizations.

Pre-business majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Business 101, Business 120, Business 121, Business 122, Economics 201, Economics 202, and Economics 203.

PRE-BUSINESS EDUCATION

Business education, sometimes referred to as "distributive education," provides students the opportunity to obtain the first two years of undergraduate studies toward a baccalaureate degree in business education and a class "A" teaching certificate in basic and comprehensive teaching or distributive education teaching. In addition, the opportunity exists for students to continue in the same program for a nonteaching degree in office administration.

Pre-business education majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Business 102, Business 103. Business 104, Economics 201, Economics 202, Economics 203, Business 106, Business 107, Business 108, Business 120, Business 121, and Business 122.

PRE-FURNITURE

In North Carolina the furniture industry ranks third in terms of its dollar volume of sales and second in terms of its employment. In order to meet the increasing demand for furniture products, the industry is rapidly changing towards mechanization and more sophisticated management controls.

The transfer students will be adequately prepared to move into a specialized furniture curriculum upon completion of the pre-furniture program and the awarding of the associate in arts degree.

Pre-furniture majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours; Furniture 102, Furniture 103, Furniture 104, Furniture 108, Furniture 109, and Furniture 201.

PRE-LIBERAL ARTS

The liberal arts curriculum has been designed to prepare the student for entrance with advanced standing to colleges and universities that grant the bachelor's degree; to assist the individual in exploring the major fields of study; and to prepare a person to meet the needs of his total environment through this study of liberal arts courses. Liberal arts courses, in their full context, open the way to help the students understand the condition of man's existence, through the study of ideas and experiences in a variety of subjects and disciplines.

The A.A. degree in liberal arts provides the educational foundation for curriculum degree programs at the senior institution in art, drama, literature, modern languages, music, philosophy, journalism, speech, history, political science, psychology, sociology, anthropology, biology, chemistry, mathematics, and earth science, to mention only the main areas. Candidates for the associate in arts degree in pre-liberal arts meet all requirements for the degree.

PRE-PHYSICAL EDUCATION

The purpose of this program is to provide the student with a sound foundation in liberal arts courses supported by learning experiences in a variety of activity skill courses. Introductory courses in physical education with primary emphasis on knowledge of basic health, fitness, and physiological principles relating to physical activity will be emphasized.

Pre-physical education majors must fulfill all requirements for an associate of arts degree. The following courses are required as part of the required elective hours: Physical Education 201, Physical Education 180, Physical Education 185, and six (6) physical education activity courses, including physical fitness. Biology 108 and Biology 109 (anatomy and physiology) and related recreation courses are recommended electives for pre-physical education majors, but students are advised to check transferability to senior institutions.

PRE-PUBLIC ADMINISTRATION

Caldwell Community College and Technical Institute offers a pre-public administration program to both present and future government employees, as well as to other interested citizens.

The program is designed to enable the student to enter public service with skills that make him/her productive immediately. It provides career employees with motivation and advantages to further themselves in the career service of the local government.

The program offers the student an opportunity to transfer to a senior institution and to continue a career in public service administration.

In addition to the general requirements for a student to receive the associate in arts degree, the pre-public administration major will take Business 119, Business 238, Business 240, Business 277, Business 278, Business 279, and Business 246. Sufficient electives should be taken to meet degree requirements.

PRE-RECREATION

The purpose of this program is to provide the students with a sound foundation in liberal arts courses complete with an understanding about man's recreational behavior. The pre-recreation curriculum provides educational preparation for students who will seek careers in a wide variety of business service agencies at the local, regional, state, and national levels. The senior institution offering a degree in recreation allows students to major in concentrations in municipal recreation, industrial recreation, park management, camping, ecology, therapeutic recreation, music or theatre art, and other programs dealing in youth services, corrective institutions, and recreation for the elderly.

Pre-recreation majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: Recreation 101, Recreation 106, Recreation 121, Physical Education 180, Education 201, Recreation 205, Art 127, and Physical Education 185.

PRE-TEACHING (K-3; 4-9; 10-12)

The State of North Carolina Department of Public Instruction provides teacher certification in the following three categories: early childhood education (kindergarten through grade three); intermediate education (grade four through nine); and secondary school education (grade ten through grade twelve).

Students seeking certification in early childhood education (K-3), will, upon transfer, begin a specialized curriculum emphasizing appropriate values and techniques that should equip the teacher with the competency and understanding essential to teaching children in the early years. Those wishing to be certified for the intermediate grade (4-9) will, upon transfer, choose an appropriate subject area concentration in language, arts, mathematics, science, or social studies. A second area is recommended and is generally selected from the fields of library science, reading, special education, art, music, or physical education.

Students desiring to enter the K-3 or 4-9 program should follow the basic elementary program, and those who desire certification for grades ten to twelve (10-12) should select the secondary education program.

Pre-teaching majors must fulfill all requirements for the associate in arts degree. The following courses are suggested electives to be included in the required elective hours: History 201, History 202, History 203, Geography 201, Education 201, or Education 202. Physical science is suggested for students interested in kindergarten through ninth grade.

ASSOCIATE IN SCIENCE

Associate in science candidates must complete the following general education courses or equivalents in addition to approved electives for a minimum of 96 credit hours with an overall grade point average of 2.0 ("C") or better:

	Quarter Hours Credit
Communication Arts This requirement is met by completing English 101, 102, and 103, and Reading 101* or an equivalent.	11
Humanities This requirement is met by completing 9 hours in Literature, Music Appreciation, Art History, Religion, Studies in Fiction, Humanities, or Philosophy.	9
Mathematics This requirement is met by completing 15 hours from courses numbered 113 or higher. (Courses numbered below 113 may be taken for elective credit.)	15

Natural Science This requirement is met by completing 3 quarters of two of the following sciences: Biology, Physical Science, Physics, or Chemistry.	24
Social Science This requirement is met by completing 6 hours in History and 6 hours in Economics, Regional Geography, Political Science, Psychology, Sociology, Anthropology, or History.	12
Physical Education†	3
Electives	22
TOTAL QUARTER HOURS	96

Electives may be selected from any area or course which is usually transferable but should be based upon the requirements of the four-year institution to which you will transfer.

*In the interest of helping students succeed in their chosen curriculum, Caldwell Community College and Technical Institute maintains a reading/study skills center for the improvement of reading, encompassing instruction in how to study, how to improve reading comprehension, how to increase vocabulary, and how to increase reading rate. Facilities and equipment are provided for diagnosing individual reading diffculties and for achieving peak skills in reading efficiency and comprehension. Services of the center are available through credit courses to any student who desires to improve his/her reading ability or whose admission testing scores indicate a need for greater reading efficiency.

†All students wishing to be exempt from the physical education requirements due to physical disability must first consult with the department of physical education. Every effort will be made to involve each student in some type of activity. Students exempt from the required physical education program because of physical disability will be required to take PED 180, Personal and Community Health.

PRE-ENGINEERING

The pre-engineering program is designed to prepare students to continue studies toward the baccalaureate degree in engineering at senior institutions. In view of the emphasis on mathematics and sciences, students who decide upon this program should possess high academic potential and should have demonstrated above average mathematical ability.

Students contemplating an engineering career should contact the school of engineering of their choice in order to obtain additional information as to degree requirements. If possible, applicants seeking a degree in engineering at the senior institution should plan to enter summer school to make up required technical courses missed during the first two years.

Careers in engineering offer vast opportunities in the business and industrial world. Degrees generally offered in schools of engineering consist of aerospace, chemical, civil, electrical, engineering mechanics, industrial, mechanical and nuclear, in addition to many other engineering options.

Pre-engineering majors must fulfill all requirements for the associate in science degree. The following courses are suggested electives to be included in the required elective hours: Engineering 101, Engineering 102, and Data Processing 125.

PRE-SCIENCE

The pre-science curriculum is designed for students preparing to transfer to a four-year program requiring a concentration in science and mathematics. The courses are chosen with the student in mind who seeks to obtain a sound education in mathematics and the physical sciences with a wide variety of major fields of interest.

The main objective of this program is to prepare future leaders in the field of science ranging from teaching in higher education to the research specialist. Candidates for the associate in science degree in pre-science must meet all requirements for the degree.

COURSE DESCRIPTIONS

GENERAL COURSE DESCRIPTIONS
SPECIAL CODING SYSTEM

F	Course will be offered FALL QUARTER
W	Course will be offered WINTER QUARTER
S	Course will be offered SPRING QUARTER
SS	Course will be offered SUMMER QUARTER
D	Course will be offered when sufficient students and instructor are available.
N	Designates a NURSING course.
E	Designates an EXECUTIVE SECRETARY course.
M	Designates a MEDICAL SECRETARY course.

Some numbers with 3 digits represent college transfer courses.
Some numbers with 3 digits represents two-year occupational courses.
Numbers with a "T" and 3 digits represent some two-year occupational courses.
Numbers with 4 digits represents one-year occupational courses.
Students should check with senior colleges of their choice for the transferability of courses.

The numbers to the right of the course title represent the following: class, lab, credit. For example:

	Class	Lab	Quarter Hours Credit
ENG 203 English Literature	**3**	**0**	**3**

In order to determine contact hours, add class hours, and lab hours. For example:

	Class	Lab	Quarter Hours Credit
ART 120 Ceramics I	**2**	**2**	**3**

Two class hours plus two lab hours equals four contact hours. Where no prerequisite is listed, none is required.

AIR CONDITIONING

AHR 101 Air Conditioning and Refrigeration 3 3 4

A general introduction to the principles of refrigeration, including the study of the assembly of the components and connections necessary in the mechanisms, methods of operation and control, and proper handling of refrigerants in charging the system. The use of testing equipment in diagnosing trouble, conducting efficiency tests, and general maintenance work is also included. (S)

AHR 1101 Automotive Air Conditioning 3 3 4

A general introduction to the principles of refrigeration, including the study of the assembly of the components and connections necessary in the mechanisms, the methods of operation and control, and proper handling of refrigerants in charging the system. The use of testing equipment in diagnosing trouble, conducting efficiency tests, and general maintenance work is also included. (S)

AHR 1101-1 (Part-time) 3 0 3

AHR 1101-2 (Part-time) 0 3 1

ANTHROPOLOGY

ANT 201 Introductory Anthropology 3 0 3

An overview of the field of anthropology. Includes physical evolution of mankind, biological variation within and between human populations, historical development of cultures, and cultural dynamics viewed analytically and comparatively. (D)

ANT 202 Cultural Anthropology 3 0 3

The science of the enculturation of man. Includes ethnography, ethnology, inter-relationships between peoples and their environments, social anthropology, and lingustics. Prerequisite: ANT 201. (D)

ART

ART 102 Art History 3 0 3

An historical survey of painting, sculpture, and architecture from the ancients through the twentieth century. (F/W/S/SS)

ART 103 Art Introduction 3 0 3

An introductory study of fundamental elements and principles of creative artistic expression with an emphasis on composition, design, shape, value, styles, and movements. (D)

ART 112 Beginning Drawing 2 2 3

A study of rudimentary drawing techniques with an emphasis on design and spatial relations in line, texture, value, and volume. (D)

ART 113 Basic Design and Composition 2 2 3

A study of art elements, concepts, media, and principles of organization with a special emphasis on developing competencies in the art process. (D)

ART 114 Intermediate Design and Composition 2 2 3

A continued study of ART 113 with a special emphasis on expanding skills in the arts process through exploration with the art elements, concepts, media, and principles of organization. (D)

ART 115 Beginning Painting 2 2 3

A study of painting materials, techniques, form relations, and color through acrylics, watercolors, and mixed media with an emphasis on developing multiple means of perceiving perspective, tones, periphery, size relations, expansion, linear, chiaroscuro, and skills to render these perceptions. (D)

ART 120 Ceramics I 2 2 3

A study of clay mixing, glazing, and firing with an emphasis on wheel throwing and handbuilding techniques. (D)

ART 124 Sculpture 2 2 3

A study in principles of sculpture with an emphasis on studio instruction through modeling, casting, constructing, and carving from studies of nature and the human figure. (D)

ART 127 Arts and Crafts I 1 4 3

A study of theories and concepts in structuring two and three dimensional forms with an emphasis on basic application through use of various materials such as flower construction, candle making, decoupage, ceramics, and book printing. (W)

ART 128 Arts and Crafts II 1 4 3

A study in designing three dimensional forms with an emphasis on leather crafts, copper tooling, and macrame. (D)

ART 129 Arts and Crafts III 1 4 3

A study of advanced problems of structuring three dimensional forms with an emphasis on individual expression in leather crafts, macrame, and handmade pottery. (D)

ART 201 Constructive Design in Plastic 2 2 3

A study of plastic media foundation with an emphasis on creative synthesis of plastic design concepts utilizing aesthetic choice as a foundation of spiritual growth. (D)

ART 202 Constructive Design in Fabric 2 2 3

A study of basics in fiber construction. (D)

ART 203 Constructive Design in Alloys 2 2 3

An introductory study of alloys and related media. (D)

ART 204 Art for the Preschool Child 2 2 3

A study of art for young children focusing on theory, methodology, materials, usage, and specific art activities appropriate for the young shild. (F)

ART 218 Printmaking 2 2 3

An introductory study of basic printmaking processes, including relief printing, with an emphasis on student involvement. (D)

ASTRONOMY

AST 101 Elementary Descriptive Astronomy 2 2 3

A nonmathematical descriptive study of the solar system, (including the sun, moon, planets, meteors, comets) astronomical instruments and their uses, stars and star systems, nebulae, quasars, and galaxies. Laboratory topics include time latitude and longitude, tides, seasons, optics, and observations using the telescope. (S/D)

AUTOMOTIVE

AUM 1101 Automotive Mechanics I 4 12 8

A course to develop a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Includes a study of the construction and operation of components of internal combustion engines. Also covers testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, and cooling systems; proper lubrication; and methods of testing, diagnosing, and repairing. (F)

AUM 1101-1 (Part-time) 2 6 4

AUM 1101-2 (Part-time) 2 6 4

AUM 1102 Automotive Mechanics II 4 12 8

A thorough study of the electrical and fuel systems of the automobile to include battery cranking mechanism, generator, ignition, accessories, wiring, fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system are also included. (W)

AUM 1102-1 (Part-time) 2 6 4

AUM 1102-2 (Part-time) 2 6 4

AUM 1103 Automotive Mechanics III 4 12 8

A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment and repair, and the servicing of park brakes. Includes principles and functions of the components of automotive chassis and practical job instruction in adjusting and repairing of suspension systems. (S)

AUM 1103-1 (Part-time) 2 6 4

AUM 1103-2 (Part-time) 2 6 4

AUM 1104 Automotive Mechanics IV 4 12 8

A study of the principles and functions of automotive power train systems. Includes clutches, transmission gears, torque converters, drive shaft assemblies, rear axles, and differentials. Also covers identification of troubles, servicing, and repair. (SS)

AUM 1104-1 (Part-time) 2 6 4

AUM 1104-2 (Part-time) 2 6 4

AUM 1105 Auto Servicing 3 9 6

A course emphasizing the shop procedures necessary in "trouble-shooting" the various component systems of the automobile. Includes a full range of experiences in testing, adjusting, repairing, and replacing components. A close simulation to an actual automotive shop situation will be maintained. Prerequisite: AUM 1102, AUM 1103. AHR 1101 or off-campus instruction in the auto repair environment. A minimum of one quarter previous attendance and the prerequisites AUM 1104 and BUS 1103. (SS)

AUM 1105-1 (Part-time) 1 3 2

AUM 1105-2 (Part-time) 1 3 2

AUM 1105-3 (Part-time) 1 3 2

PME 1121 Braking System (Truck) 2 3 3

A complete study of various braking systems used on automobiles and light trucks. Emphasis is placed on how they operate and their proper adjustment and repair. (D)

PME 1126 Small Engine Repair 2 3 3

A course offered to train in the maintenance and overhaul of two- and four-cycle engines. Students learn to repair and replace defective parts of the small engines used to power boats, lawn mowers, garden tractors, chain saws, rototillers, and similar machines. Instruction in safety is one of the major features of the course. (D)

PME 1184 Co-op Work. (Min.) 0 15 5

A full-time or part-time prearranged on-the-job training course. The student is placed in a garage to gain experience during the summer and by contract, verbal or written agreement, returns to the institution for the fall term. The student enrolls at the school and is supervised by the instructor. Prerequisite: Three or more quarters of instruction. (SS/D)

PME 1202 Auto Electrical/Electronics 4 9 7

A thorough study of the theory and operation of various automobile electrical units and systems. Covers maintenance and testing procedures, diagnosis, and repair of all types of electrical/electronic components, especially the transistor circuits found on the modern automobile. Prerequisite: AUM 1102.

PME 1202-1 (Part-time) 2 6 4

PME 1202-2 (Part-time) 2 3 3

PME 1203 Automotive Engine Tune-up 4 9 7

A course designed to provide depth in understanding and skill in the use of various types of tune-up equipment. Emphasis is placed on gaining knowledge of the waveforms of the oscilloscope and other units of the Tune-Up Tester. Through proper use of tune-up equipment, the student is expected to demonstrate ability in diagnosing malfunctions in ignition systems, cranking motors, and charging circuits. Prerequisite: AUM 1102, DFT 1102 or equivalent work experience. (D)

PME 1203-1 (Part-time) 2 6 4

PME 1203-2 (Part-time) 2 3 3

PME 1214 Advanced Air Conditioning Repair 3 3 4

An in-depth study of the principles of refrigeration to include extensive practice in disassembly and the assembly of the component parts, diagnosis of malfunctioning, and proper methods of repair and handling of refrigerants in charging the various systems. Prerequisite: AHR 1101 or work experience. (D)

PME 1221 Front Suspension, Alignment, and Power Steering 1 3 2

A course covering the theory of operation, correct disassembly, and mounting of all front suspension parts on various types of automobile and light truck frames. The course will provide a thorough understanding of the function and repair of steering gears (power and standard), shock absorbers, springs, wheels and tires, pumps, and rams. Includes theory and application of steering geometry, correct diagnosis of problems, use of the alignment and balancing machines, and analysis and correction of tire wearing problems, vibrations, hard steering, and pulling. Prerequisite: AUT 1123. (D)

PME 1224 Advanced Automatic Transmissions 3 12 7

A course designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, functions, construction, operation, servicing and "trouble-shooting" procedures, and repair of various types of automatic transmission. Prerequisite: PME 1124 or work experience. (D)

PME 1224-1 (Part-time) 2 6 4

PME 1224-2 (Part-time) 1 6 3

PME 1225 Auto Engine Trouble Shooting 2 9 5

A course in the general principles of engine "trouble-shooting," including the electrical and fuel systems. In addition, a study is made of the engine design and construction along with the four-stroke cycle and the two-stroke cycle principles of engine operation. The details of the engine lubrication, maintenance, and operation of cooling systems are stressed. Prerequisite: AUM 1101 or work experience. (D)

PME 1225-1 (Part-time) 1 6 3

PME 1225-2 (Part-time) 1 3 2

PME 1226 Automobile Servicing II 2 9 5

A course emphasizing "trouble-shooting" and repairing the various component systems on vehicles provided for general repairs. The student is given in-depth experiences in diagnosis, testing, adjusting, repairing, and replacing components parts. Prerequisite: AUT 1125. (D)

PME 1226-1 (Part-time) 1 6 3

PME 1226-2 (Part-time) 1 3 2

PME 1227 Power Accessories 5 0 5

A course designed to acquaint the student with the operation, service, and repair of power operated seats, windows, tops, windshield wipers, radio antennas, ect. It should insure the development of the student's ability to understand and trace out the circuits of the electrical accessories and to enhance skills in diagnosing troubles and repairing damaged circuits. Includes application of knowledge in drawing and reading schematic diagrams of electrical circuits. Prerequisite: PME 1202 or work experience. (D)

AUB 1101 Auto Body Repair I **4 12 8**

A study of the basic principles of automobile construction, design, and manufacturing. Includes a thorough study of angles, crown, and forming of steel into the complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning, and painting of damaged areas.

AUB 1101-1 (Part-time) **2 6 4**

AUB 1101-2 (Part-time) **2 6 4**

AUB 1102 Auto Body Repair II **4 12 8**

A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders and metal working and painting.

AUB 1102-1 (Part-time) **2 6 4**

AUB 1102-2 (Part-time) **2 6 4**

AUB 1103 Auto Body Repair III **4 12 8**

A course to develop skill in shrinking stretched metal; soldering and leading; preparing metals for painting; straightening of doors, hoods, and deck lids; fitting and aligning; painting fenders and panels; spot repairs; and complete vehicle painting. The student learns the use and application of power tools.

AUB 1103-1 (Part-time) **2 6 4**

AUB 1103-2 (Part-time) **2 6 4**

AUB 1104 Auto Body Repair IV **4 12 8**

A general introduction to and instruction in the automotive frame and front end suspension systems, the methods of operation and control, and the safety of the vehicle. Unit job application covers straightening of the frames, front wheel alignment, methods of removing and installing interior trim, and cutting, sewing, installing, and fitting headlinings, seat covers, and door trim panels. All phases of training are applied. The course also covers repair order writing, parts purchasing, estimates of damage, and developing the final settlement with adjuster.

AUB 1104-1 (Part-time) **2 6 4**

AUB 1104-2 (Part-time) **2 6 4**

AUB 1105 Auto Body Shop Application **3 9 6**

An extensions study of topcoats and their applications, with further development in the skills of spot painting with acrylic lacquer and acrylic enamel. Includes application of overall finishes such as acrylic lacquer, acrylic enamel, synthetic enamel, and polyurethane enamel; refinishing problems; and cures. Emphasis is placed on the final job appearance, detailing, neatness, and quality of repairs. Also covers development of skills in repair order writing, estimating, customer relations, and final settlement with insurance companies.Prerequisites: AUB 1101, AUB 1102. (SS)

AUB 1105-1 (Part-time) 1 3 2

AUB 1105-2 (Part-time) 1 3 2

AUB 1105-3 (Part-time) 1 3 2

IMPORTED CAR OPTION

AUT 1145 Transaxle Operation and Repair 3 9 6

A study of the combination transmission and differential (transaxle) used on imported rear engine units with emphasis on diagnosing and repairing malfunctions. (D)

AUT 1146 The Air-Cooled Engine 2 6 4

A course designed to help the student understand the basic differences in liquid-cooled and the air-cooled engine. The horizontally-opposed and inline engine will be considered. (D)

AUT 1147 Imported Car Carburetion, 2 6 4

A course covering the different types of carburetion used on imported cars. Included will be fuel injection and carburetors of the downdraft, sidedraft, and updraft type. (D)

AUT 1150 Imported Car Valve Trains 2 6 4

A study of the valve systems used in imported cars. Includes conventional cam shaft and both single and double overhead cam shaft type train systems. (D)

AUT 1154 The Wankel Engine 3 9 6

A course covering the wankel rotary engine used in some imported cars. Both the single rotor and double rotor are included. Models of the engine are disassembled and reassembled and the component parts studied. (D)

AUT 1158 Front Wheel Drive System 2 6 4

A study of the systems used in many imported cars to provide front wheel drive. Includes a study of constant velocity universal joints and specialized differentials. (D)

BIOLOGY

BIO 101 General Biology 3 3 4

An introduction to the biological concepts, including a study of the chemical and physical structure of the living cell. Various animal groups are studied from the point of view of structure, function, and habitat. (F/SS)

BIO 102 General Biology 3 3 4

A continuation of BIO 101, including a study of various plant groups approached from the point of structure, function, and habitat. Prerequisite: BIO 101. (W/SS)

BIO 103 General Biology 3 3 4

A continuation of BIO 102 with emphasis on specific concepts such as genetics and evolution. Prerequisite: BIO 102. (S/SS)

BIO 105 Basic Life Science 4 2 5

A study of the normal structure and related functioning of the human body which is identified as a living organism composed of living cells, tissues, organs, and systems. The normal body is studied as a basis for understanding variations from the normal and the human's need to maintain homeostasis. Included are the skeletal, muscular, digestive, circulatory, respiratory, urinary, reproductive, endocrine, integumentary and nervous systems, and the special sense organs. Elementary principles and concepts of chemistry, microbiology, and physics are presented with the emphasis on the application of these principles to the relationships between structures and functions of the normal human body. Encompasses bacterial anatomy, physiology, and immunology in laboratory portions with relevant experiments to augment the student learning of body structure and function. (D)

BIO 107 Human Anatomy and Physiology for Radiology 3 2 4

A course providing an opportunity for the student to gain an understanding of the basic facts of human anatomy and physiology which are particularly useful for an allied health professional. Relevant pathophysiology is included in connection with this study. The systems covered include skeletal, muscular, nervous, respiratory, and circulatory. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. This course differs from BIO 108 only in that this course has a strong emphasis on the skeletal system with decreased emphasis on the other systems covered in this course. Prerequisite: BIO 105. (W)

BIO 108 Human Anatomy and Physiology I 3 2 4

A course providing an opportunity for the student to gain an understanding of the basic facts of human anatomy and physiology which are particularly useful for an allied health professional. Those principles of chemistry and physics which are supportive of these understandings are included along with the relevant pathophysiology. The systems covered will include skeletal, muscular, nervous, respiratory, and circulatory. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. Prerequisite: BIO 105. (W/SS)

BIO 109 Human Anatomy and Physiology II 3 2 4

A continuation of BIO 108 providing an opportunity for the student to gain an understanding of the basic facts of human anatomy and physiology. Those principles of chemistry and physics which are supportive of these understandings are included, along with the relevant pathophysiology. The systems covered include reproductive, digestive, endocrine, integumentary, urinary, fluid, and electrolytes. Students in this course have the opportunity to work in laboratory situations, many of which are experimental in nature. Prerequisite: BIO 108. (F/SS)

BIO 115 Human Anatomy for Medical Secretaries 3 0 3

A general survey of human anatomy covering the reproductive, endocrine, circulatory, urinary, respiratory, nervous, digestive, skeletal, muscular, and integumentary systems. The course is designed as a preparatory course for medical terminology courses. (F)

BIO 125 Medical Terminology I 1 0 1

The first in a series of two courses which includes terms related to all areas of medical science, hospital service, and para-medical specialities. Terms introduced parallel the topics covered in Anatomy and Physiology I. (F)

BIO 126 Medical Terminology II 1 0 1

The second in a series of two courses in which terms related to all areas of medical science, hospital service, and para-medical specialities are introduced. Prerequisite: BIO 125. (W)

BIO 135 Microbiology 2 2 3

A study of microscopic units of the human body as well as microorganisms. Emphasis is placed on the etiology of pathogens with special considerations given to pathogenicity, virulence, resistance, control, and immunity. Prerequisite: BIO 105. (W/SS)

BIO 139 Topographical Anatomy 2 0 2

A study of visualizing the patient's surface anatomy. Major emphasis is placed on learning the topographical location of internal organs, muscles, nerves and nerve plexuses, blood vessels, bony prominences, and techniques of palpation of structures not visually evident. Radiology is stressed throughout the course since the technique defines structures not recognized by visual inspection or palpation. Living anatomy is stressed throughout the course, so that surface landmarks and palpations are constant reminders of deeper structures. Prerequisite: NMT 102. (S)

BIO 201 Botany I 3 2 4

A study of the morphology, physiology, reproduction, and ecological relationships of nonseed producing plants. Prerequisite: BIO 103. (D)

BIO 202 Botany II 3 2 4

A study of the morphology, physiology, reproduction, and ecological relationships of seed producing plants. Prerequisite: BIO 201. (D)

BIO 206 Invertebrate Zoology 3 2 4

A study of the structure, physiology, and taxonomy of the invertebrates. Prerequisite: BIO 103. (D)

BIO 207 Vertebrate Zoology 3 2 4

A systematic survey of the major groups of vertebrate animals. Prerequisite: BIO 103. (D)

BIO 208 Introduction to Study of Disease 3 0 3

A study of the general principles involved in the living body. Covers a variety of diseases and malfunctions of the body. Each organ and system of organs will be looked at closely. Points of interest for the diagnostic technologist are covered.Prerequisites: BIO 108, BIO 109. (W)

BIO 209 Radiation Biology 3 0 3

A course designed to help the student understand the effects of ionizing radiation in the biologic system and to increase awareness of the public right to minimal radiation exposure. (SS)

BIO 225 Advanced Anatomy and Physiology

An introduction to normal structure and function of the human body on a cellular level, including tissues, organs, and organ systems. When relevant, clinical applications are briefly made of such acquired knowledge; e.g., relation of information to basic pathological states. The laboratory experience introduces additional fundamentals gained by personal participation in various types of exercises.

BIOMEDICAL ELECTRONICS TECHNOLOGY

BMT 201 Medical Institutions 3 0 3

A motivational and career orientation course designed to prepare the student to enter the health care industry with some degree of general sophistication and awareness. Hospital functions and design, a brief description of most medical specialities and para-medical occupations, and the professional and social interrelationship between these groups are covered. (F)

BMT 228 Practicum 0 39 13

A course providing supervised work experience on a schedule satisfactory to the employer, the institution, and the student. The work periods are carefully planned and closely supervised by the employer and the institution to provide experiences and responsibilities commensurate with the capabilities of the student. Prerequisite: Satisfactory completion of six quarters of the biomedical equipment technology program. (S)

BMT 244 Safety Inspections and Standards 2 4 4

A review of biomedical instrumentation with emphasis on safety. Particular attention is given to all aspects which involve physical or biological hazards to patients or operating personnel. National, state, and local standards are reviewed and methods of implementing standards are studied. (W)

BMT 254 Biomedical Instrumentation I 2 4 4

The first in a series of three courses of medical instrumentation. Designed to provide the student with a background on the source of the segual for a given instrument, the basis on which the measurement is made, and the use of the results as related to medical instrumentation. (SS)

BMT 264 Biomedical Instrumentation II 2 4 4

A continuation of BMT 254. Provides an indepth analysis of the basic medical instrumentation circuits. Experiments are provided for each circuit. Prerequisite: BMT 254. (F)

BMT 271 Biomedical Instrumentation III 2 4 4

A continuation of BMT 264. Describes the theory and operation of actual medical instruments. Experiments are provided to build, calibrate, and test medical instruments. Prerequisite: BMT 264. (W)

BMT 274 Biomedical Instrumentation: X-Ray and Nuclear Medicine 2 4 4

A course designed to provide the technician with an understanding of the workings of the component parts of radiation producing, detecting, and measuring equipment and with the ability to maintain, repair, and adjust this equipment. Prerequisite: Approval of instructor. (F)

BMT 280 Biomedical Instrumentation Troubleshooting 2 4 4

A course presenting basic problems involving tracking down and identifying problems frequently encountered with various types of medical instrumentation. Much time is spent developing logical troubleshooting techniques such as backtracking and the half split rule. Any clinical or monitoring devices may be used for laboratory exercises. Mechanical, as well as electronic problems, are considered. Prerequisite: Approval of instructor. (W)

BUSINESS EDUCATION

BUS 090 Basic Accounting 3 2 4

A course designed to provide the student with a basic understanding of accounting. Emphasis is placed on the fundamentals of accounting in an effort to give the student a strong foundation for entry into Accounting I. Covers the basic accounting cycle of journalizing, posting, and preparation of the work sheet and financial statements, adjusting and closing entries, and the post-closing trial balance. Completion of this course does not earn credit toward the completion of a diploma or a degree. (D)

BUS 101 Introduction to Business 5 0 5

A survey of the types of business organizations with emphasis on financing, marketing, business law, and internal control and management. (S)

BUS 102 Typewriting 2 3 3

An introduction to the touch-typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts. (F)

BUS 103 Typewriting 2 3 3

A continuation of BUS 102 with emphasis on the development of speed and accuracy with further mastery of correct typewriting techniques. These skills are applied in correspondence, tabulation, manuscripts, and business forms. Prerequisite: BUS 102 or approval of instructor. (F/W)

BUS 104 Typewriting 2 3 3

A continuation of BUS 103 with emphasis on production typing and speed building. Attention is given to the student's ability to function as an expert typist, producing mailable copies. Units of production include correspondence, tabulation, manuscripts, medical reports, legal documents, accounting reports, and programs. Prerequisite: BUS 103 or the equivalent. (W/S)

BUS 106 Shorthand 2 3 3

A study of the principles of Gregg Shorthand, including a presentation of theory and extensive practice in reading and writing shorthand, with emphasis on phonetics, penmanship, word families, brief forms, and phrases. (F)

BUS 107 Shorthand 2 3 3

A continuation of the study of shorthand theory with more emphasis on speed, accuracy, fluency, and vocabulary. Includes an introduction to transcription—minimum dictation rate of 60 words a minute with a minimum of 95 percent accuracy on new material. Prerequisite: BUS 106. (F/W)

BUS 108 Shorthand 2 3 3

A study of theory and speed building with an emphasis on development of speed in dictation and speed accuracy in transcription. Includes an introduction to office style dictation with minimum dictation rate of 70 words a minute with a minimum of 95 percent accuracy on new material. Prerequisite: BUS 107. (W/S)

BUS 110 Office Machines 2 2 3

A general survey of business and office machines. Students receive training in techniques, processes, operation, and application of adding machines and electronic calculators. (W/S)

BUS 111 Collecting and Reporting Information 2 2 3

A course designed to aid the student in the methods of collecting various types of data needed in the furniture industry for better cost estimates and analysis. Emphasis is placed on accurate methods of collecting and presenting data in an effective method. (F)

BUS 112 Personal Finance 3 0 3

A course covering personal and family finance, budgeting, saving, insurance, real estate, stock market, and other investment media. (D)

BUS 115 Business Law 3 0 3

A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instrument, and agencies. (W)

BUS 116 Business Law 3 0 3

A course including the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights. Prerequisite: BUS 115. (S)

BUS 119 Introduction to Public Administration 3 0 3

A survey of the practices and political relationships in public administration leadership, decision making, personnel, and budgetary functions within governmental agencies. Includes analysis of the role of the public administrator in contemporary government and an examination of the implementation of public policy at all levels of government with emphasis on local and the municipal institutions. (F)

BUS 120 Principles of Accounting 3 2 4

A study of methods of modern accounting practice, theory of accounting as a management information system, study of the accounting cycle and presentation of financial statements, and methods and practices applicable to formal organizations. (F)

BUS 121 Principles of Accounting 3 2 4

A continuation of the study of accounting principles and practices with emphasis on managerial accounting tools for decision making. Prerequisite: BUS 120. (W)

BUS 122 Principles of Accounting 3 2 4

A critical examination and analysis of accounting principles, determination of cost and income, valuation and statement presentation, and current problems presented in accounting literature and business cases. Prerequisite: BUS 121. (S)

BUS 123 Business Finance 3 0 3

A study of the financing of business units as individuals, partnerships, corporations, trusts. A detailed study is made of short-term, long-term, and consumer financing. (F)

BUS 124 Business Finance **3 0 3**

An examination of financing in federal, state, and local government and the ensuing effects upon the economy, with a look at factors affecting the supply of funds and monetary and credit policies. Prerequisite: BUS 123. (W)

BUS 134 Personal Development **3 0 3**

A course designed to help the student recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal development. (S)

BUS 162 Fundamentals of Real Estate I **5 0 5**

An introductory course in a series of two courses designed to introduce students to the real estate industry and to meet the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. Students will study fundamental principles and theories of real estate. Topics covered include terminology, North Carolina's licensing law, organizational structure, brokerage, contracts, leases, and ownership. (D)

BUS 163 Fundamentals of Real Estate II **5 0 5**

A continuation of BUS 162. Students will study theory and practice of real estate. Topics include fundamental operation of real estate, the real estate industry and its relationship to financing, appraising and law, listing and closing of real estate, and building construction. Upon completion of this course, students will have met the educational requirements of the North Carolina Real Estate Licensing Board for admission to the real estate broker licensing examination. Prerequisite: BUS 162. (D)

BUS 183M Terminology and Vocabulary **3 0 3**

A course designed to develop an understanding of the terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices. (W)

BUS 195 Small Business Management **3 0 3**

A course designed to emphasize those aspects of management that are uniquely important to small firms and self-employed individuals. Provides practice in decision making on the same types of problems that small businessmen face as they make decisions. Emphasis is placed on organization, financing, recordkeeping, and management. (D)

BUS 205 Word Processing I **2 3 3**

A course emphasizing the development of individual production rates. The student learns the techniques needed in planning and typing projects that closely approximate the work appropriate to the field of study. The use of transcribing machines is taught with specific emphasis on the operation of word processing equipment. Prerequisite: BUS 104. (F)

BUS 206E Dictation and Transcription **3 2 4**

A course designed to develop the skill of taking dictation and transcribing at the typewriter materials appropriate to the course study. Includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. A minimum dictation rate of 80 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Prerequisite: BUS 108. (F)

BUS 206M Dictation and Transcription 3 2 4

A course designed to help the student learn the fundamentals of medical transcription. Medical dictation is accurately transcribed using medical dictionaries, spelling guides, and other standard reference sources. Students become familar with the various types of medical reports, records, and acceptable initials and abbreviations for medical terminology. Prerequisite: BUS 108. (F)

BUS 207E Dictation and Transcription 3 2 4

A course designed to help develop the accuracy, speed, and vocabulary necessary to meet the stenographic requirements of business and professional offices. A minimum dictation rate of 90 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Opportunities for application of transcription skills are available through limited hours of work experience in the CCC & TI word processing center. Prerequisite: BUS 206E. (W)

BUS 207M Dictation Transcription 3 2 4

A course emphasizing accurate production of medical transcription through a broad knowledge of medical terms, drugs, and instruments, as well as acceptable initials and abbreviations for medical terminology. The student continues to use medical dictionaries, spelling guides, and other standard reference sources. Prerequisite: BUS 206M. (W)

BUS 208E Dictation and Transcription 3 2 4

A speed-building course, principally, but also with a focus on accuracy. A minimum dictation rate of 90 words per minute with a minimum of 95 percent accuracy is required for five minutes on new material. Limited hours of transcription experience are gained in CCC & TI's word processing center. Prerequisite: BUS 207E. (S)

BUS 208M Dictation and Transcription 3 2 4

A course emphasizing accurate medical transcription through a broad knowledge of medical terms, drugs, and instruments, as well as acceptable initials and abbreviations for medical terminology. The student continues to use medical dictionaries, spelling guides, and other standard reference sources. Prerequisite: BUS 207M. (S)

BUS 211 Word Processing II 0 6 2

A course providing instruction in the operation of word processing equipment on practical application problems. Prerequisite: BUS 205. (W)

BUS 212 Business Machine Transcription 1 2 2

A study and practice in the use of transcribing machines in business dictation. Proficiency in word usage, correct grammar, and letter styles are emphasized. Prerequisite: BUS 103. (D)

BUS 214 Secretarial Procedures 3 2 4

A course designed to acquaint the student with the responsibilities encountered by a secretary during the workday. These include receptionist duties, handling the mail, basic rules of filing, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims. (S)

BUS 215E Office Application 0 18 6

A course in which students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned according to the course of study. Open only to students in the sixth quarter. Prerequisites: BUS 214, BUS 205, BUS 208, BUS 211. (D)

BUS 215M Office Application **0 18 6**

A course in which students assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned according to the course of study. Open only to students in the sixth quarter. Prerequisites: BUS 214, BUS 205, BUS 208, BUS 211. (D)

BUS 217 Business Law **3 0 3**

A study of the powers, policies, methods, and procedures used by the various federal, state, and local administrative agencies in promoting and regulating business enterprises. Includes a consideration of the constitutional and statutory limitations on these bodies and judicial review of administrative action. Prerequisite: BUS 116. (D)

BUS 219 Credit Procedures **3 0 3**

A study of the principles and practices in the extension of credit. Includes collection procedures and law pertaining to credit extension and collection. (W)

BUS 220 Intermediate Accounting **3 2 4**

A thorough treatment of the field of general accounting providing the necessary foundation for specialized studies and emphasis on financial statements, the accounting process, and current assets. Prerequisite: BUS 122. (F)

BUS 221 Intermediate Accounting **3 2 4**

A theoretical review of accounting principles with emphasis on noncurrent assets, liabilities, and paid-in capital. The present value concept of evaluating investment proposals is introduced. Prerequisite: BUS 220. (W)

BUS 222 Intermediate Accounting **3 2 4**

A continued study of accounting principles with emphasis on retained earnings, financial statement analysis, correcting errors, and reporting price level change. Prerequisite: BUS 221. (S)

BUS 225 Cost Accounting **3 2 4**

A detailed study of systems of cost accounting including process, job orders, and standards costs. Usefulness of data to management is stressed. Prerequisite: BUS 121. (F)

BUS 229 Taxes I **3 2 4**

A study of the application of federal and state taxes to various businesses and business conditions including income, payroll, intangible, capital gain, and sales taxes and their uses. Prerequisite: BUS 121. (W)

BUS 230 Taxes II **3 2 4**

A study of the application of federal and state taxes to individuals, business partnerships, and corporations. Includes franchise, excise, gift, income, and inheritance taxes. Prerequisite: BUS 229. (S)

BUS 232 Sales Development **3 0 3**

A study of retail, wholesale, and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations is required. (S)

BUS 233 Personnel Management **3 0 3**

A study of the principles of organization and management of personnel: procurement, placement, training, performance checking, supervision, renumeration, labor relations, fringe benefits, and security. (F)

BUS 235 Business Management **3 0 3**

A study of the principles of business management including an overview of major functions of management such as planning, staffing, controlling, directing, and financing. Covers clarification of the decision making function versus the operating function. Includes role of management in business qualifications and requirements. Prerequisites: BUS 101, BUS 121. (S)

BUS 237 Wholesaling **3 0 3**

A study of the developments of wholesaling. Includes present day trends in the United States and functions of wholesaling. (D)

BUS 238 Problems of Public Administration, **3 0 3**

An analysis of contemporary problems related to the administration of public organization. Includes problems of authority, communication, control, leadership, and responsibility. Case studies are reviewed and resource people in the profession are consulted for their knowledge and personal experience in the field. (S)

BUS 239 Marketing **5 0 5**

A general survey of the field of marketing with a detailed study of the functions, policies, and institutions involved in the marketing process. (F)

BUS 240 Public Finance **3 0 3**

A study of the fundamental principles of public finance, the economics of government expenditure and the revenue policy, the shifting and the incidence of taxation, expenditure decisions and the cost-benefit analysis for the budgeting system, and the relations of government finance to its economy. Special emphasis is directed to expenditures for the taxation for the State of North Carolina and its local government. (F)

BUS 243 Advertising **3 2 4**

An examination of the role of advertising in a free economy and its place in the media of mass communications. Includes a study of advertising appeals, product and market research, selection of media, and means of testing effectiveness of advertising. Covers theory and practice in writing advertising copy for various media. (F)

BUS 245 Retailing **3 0 3**

A study of the role of retailing in the economy including development of present retail structure, functions performed, principles governing effective operation, and managerial problems resulting from current economic and social trends. (D)

BUS 246 Municipal Public Relations 3 0 3

A course covering the complex areas of public opinions, public attitudes, and public information. Designed to teach all personnel to act efficiently in these areas and to make good publio relations integral to the duty's administrative practice. (D)

BUS 247 Insurance 3 0 3

A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included. (S)

BUS 266 Budget and Record Keeping 3 0 3

The basic principles, methods, and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the roles they play. Emphasis is on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning. Prerequisite: BUS 121. (D)

BUS 269 Auditing 3 2 4

An examination of properly applicable internal control features, audit principles, and standards and procedures through which the student will identify the objectives and functions of auditing including aspects of financial statements such as proper and adequate disclosure in accordance with modern concepts of financial reporting. Emphasis is placed on the conceptual skills needed in auditing. Prerequisite: BUS 122. (S)

BUS 271 Office Management 3 0 3

A study presenting the fundamental principles of office management with emphasis on the role of office management including its functions, office automation, planning, controlling, organizing, and actuating office problems. (S)

BUS 272 Principles of Supervision 3 0 3

An introduction to the basic responsibilities and duties of the supervisor and his/her relationship to superiors, subordinates, and associates. Emphasis is on securing an effective work force and role of the supervisor. Methods of supervision are stressed. (S)

BUS 275 Programming 3 0 3

A course designed to provide the student with the basic concepts of programming for easy mastery of any specific system with the minimum of additional instruction. The logic required in computerized problem solutions is also stressed. Flowcharts and the COBOL language are combined to help the student meet the logic and programming objectives. Prerequisite: EDP 104. (F)

BUS 276 Money and Banking 3 0 3

An application of money and banking theory and procedures including the functions of money, various phases of customer relations with banks, bank administrative policies, the Federal Reserve System, specialized financial-institutions, and international monetary principles. Prerequisite: ECO 202. (S)

BUS 277 Application in Public Administration I 2 6 4

A course providing observation and participation in the area of the student's special interest. Students are placed in local government departments to engage in specific research projects at a policy or administrative level. Examples of these projects are position classification survey, personnel policy, job specifications, performance appraisal study, employee attitude survey, employee handbook, pay plan, personnel audits, utilization of records, and suggestion of award systems. (F)

BUS 278 Application in Public Administration II 2 6 4

A course providing observation and participation in the area of the student's special interest. Students are placed in local government departments to engage in specific research projects at a policy or administrative level. Examples of these projects are fiscal administration—local government budget and finance administration; economic approaches to urban problems—zoning, urban renewal, public housing, welfare problems, revenue sharing, and crime; and public finance—tax policies and taxation, budget determinations, and the budget process. (W)

BUS 279 Internship in Public Administration 1 18 7

A course providing for participation in the activities of an administrative agency under the joint supervision of a faculty member and the agency.

BUS 282 Governmental Accounting 3 0 3

An application of accounting principles to government and problems related to governmental appropriations and allotments, encumberances, and fund accounting. Prerequisite: BUS 122. (W)

BUS 284 M&E Terminology and Vocabulary 3 0 3

A course placing emphasis on an understanding of the terminology and vocabulary appropriate to the course of study and as it is used in a professional office. Prerequisite: 183M. (S)

BUS 285 Cost Records and Estimates 2 0 2

A study of cost estimation, equipment, materials and labor takeoff, and overhead cost. The advantages and limitations of prorating items of cost are considered. Prerequisite: MAT 110 or approval of instructor. (SS)

BUS 1101 Cost Records and Cost Estimates 2 0 2

A survey of estimates of cost (materials, labor, overhead, etc.). Materials cost deals with price and grade, costs of delivery and storage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover, and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. (D)

BUS 1103 Small Business Operations 3 0 3

An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations. (SS)

BUS 1105 Industrial Organizations 3 0 3

A study of the methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Includes an introduction to the competitive system and the factors constituting product cost. (SS)

BUS 1134 Personal Development 3 0 3

A course designed to teach the student the importance of good personality and to develop the type of personality that will assist in job success. Emphasis is placed on the principles of grooming in dress, make-up, hygiene, and health. (D)

INS 214 General Insurance—Part I—Introduction 2 0 2

An introductory course which should enable the student to identify the types of risk and how to apply the risk management concepts to said risks; to discuss the various types of insurance and functions of insurance companies; and to interpret the various laws and regulations affecting the insurance industry. (D)

INS 215 General Insurance—Part II—Life Accident, Health 2 0 2

A continuation of INS 214, this course should enable the student to discuss exposures, types, policy provisions, and practices of life, health, and accident insurance; to program life and health insurance; to interpret the regulations and laws specifically applying to life, health, and accident agents; and to describe the various social insurance plans. Prerequisite: INS 214. (D)

INS 216 General Insurance—Part III—Fire and Casualty 2 0 2

A continuation of INS 215, this course will enable the student to discuss automobile insurance, general liability exposures and insurance, worker's compensation, commercial fire and other insurances, home owners insurance, crime insurance, and government fire and casualty insurance. Prerequisite: INS 216. (D)

CARPENTRY

CAR 1101 Carpentry 3 15 8

A brief history of carpentry and present trends of the construction industry. The course involves operation, care, and safe use of carpenters' hand tools and power tools in cutting, shaping, and joining construction materials. Major topics of study include theoretical and practical applications involving materials and methods of construction, building layout, preparation of site, footings and foundation, and wall construction, including form construction and erection. (D)

CAR 1102 Carpentry: Millwork and Cabinetmaking 3 15 8

A course in cabinetmaking and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment is emphasized in learning methods of construction of millwork and cabinetry. Practical applications include measuring, layout, and construction of base and wall cabinets, built-in desk, door and window frames, stairs, and interior and exterior cornice and trim. Materials and finishes are also studied. Prerequisites: CAR 1101, DFT 1110. (D)

CAR 1103 Carpentry: Framing 3 15 8

A study of the principles and practices of frame construction beginning with the foundation sills and including floor joist, subfloor, wall studs, ceiling joist, rafters, bridging, bracing, sheathing, and interior wall partition. Roof construction includes the layout and construction methods of common types of roofs using standard rafter construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to the coordination of carpentry work with installation of the mechanical equipment such as electrical, air conditioning, heating, and plumbing. Prerequisites: CAR 1101, DFT 1111. (D)

CAR 1104 Carpentry: Finishing 3 18 9

A study of exterior and interior trim and finish carpentry, completing the general carpentry program. Includes materials and methods used in finishing carpentry such as exterior cornice, door, and window trim; interior flooring; door and window facing; moldings; cornice construction; installation of hardware; and installation of built-in equipment and cabinets. Prerequisites: CAR 1103 DFT 1111. (D)

CAR 1113 Carpentry: Estimating 3 3 4

A practical course in quantity "take off" from prints of jobs performed by the carpenter, including figuring the quantities of materials needed and costs of building various components and structures. Prerequisites: DFT 1111, MAT 1112. (D)

CAR 1114 Building Codes 3 0 3

A study of building codes and the minimum requirements for local, county, and state construction regulations. Involves safety, sanitation, mechanical equipment, and materials. Also includes a review of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code. Prerequisites: CAR 1103, CAR 1104. (D)

CHEMISTRY

CHM 101 General Chemistry I 3 3 4

A basic course designed to provide a foundation of essential facts and underlying principles in chemistry. Fundamental concepts, chemical symbols, fundamental particles, atomic structure, use of periodic chart, and scientific measurements are covered. (F)

CHM 102 General Chemistry II 3 3 4

A continuation of CHM 101 to include a study of chemical bonding, chemical kinetics, kinetic theory of gases, solutions, chemical thermodynamics, and electrochemistry. Prerequisite: CHM 101. (W)

CHM 103 General Chemistry III 3 3 4

A continuation of CHM 102 with a study of acid-base reactions, oxidation-reducing reactions in water and the environment, air pollution, introduction to organic and biochemistry, and nuclear chemistry. Prerequisite: CHM 102. (S)

COSMETOLOGY

COS 1001 Scientific Study I 4 6 6

A course for beginners in cosmetology. Includes a study of professional ethics, grooming and personality development, sterilization, sanitation, first aid and bacteriology, cosmetology law, anatomy, chemistry, nail disorders, manicuring, hair, scalp, skin, and disorders pertaining to the hair, scalp, and skin. (F)

COS 1002 Scientific Study II 5 0 5

A classroom study of skin, scalp, hair, nails, and their disorders. Includes salesmanship, permanent waving, marcelling, relaxing, hairdressing, wigs, and hair coloring. Prerequisite: COS 1101. (F)

COS 1003 Scientific Study III **5 0 5**

A classroom study of anatomy, manicuring, chemistry, cosmetics, facials, hair styling, theory of massage, scalp treatments, superfluous hair removal, grooming, and hygiene. Prerequisite: COS 1002. (F).

COS 1004 Scientific Study IV **5 0 5**

A classroom study of chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, beauty salon salesmanship management, electricity, cold waving, and hair shaping. Prerequisite: COS 1003. (W)

COS 1005 Public Relations for Cosmetologists **3 0 3**

A course focusing on public relations as it pertains to the cosmetology profession. Students must have accumulated 1200 hours previously in a cosmetology school as a prerequisite for the course. Prerequisites: COS 1004, COS 1044. (D)

COS 1006 Beauty Salon Business Operations **3 0 3**

A course designed for advanced students of cosmetology who have completed 1200 contact hours in a school of cosmetic art. The student will learn the basic problems of business operations, the types of business organizations, record keeping for a small business, financial aspects of a business, and proper physical facilities of a beauty salon. Prerequisites: COS 1004, COS 1044. (D)

COS 1011 Mannequin Practice **1 18 7**

A study of finger waving, pin curling, rollers, marcelling, hair relaxing, shampooing and rinses, scalp treatment, hair cutting, permanent waving, hairdressing and combing, hair tinting, bleaching, frosting, streaking, wig care, and styling. Prerequisite: COS 1004. (W)

COS 1022 Clinical Application I **0 24 8**

A study of live model performance. This course is designed to develop skills and understanding of techniques and applications in the areas of bacteriology, pin curling, finger waving, rollers, permanent waving, marcelling, chemical relaxing, hair coloring, and hair cutting. Prerequisite: COS 1011. (S)

COS 1022-1 (Part-time) **0 6 2**

COS 1022-2 (Part-time) **0 18 6**

COS 1033 Clinical Application II **0 24 8**

A course providing continued laboratory practice and application of techniques in hair shaping, professional ethics, manicuring, chemistry, cosmetics, facials, hair styling, hair coloring (rinses, etc.), and scalp treatments. Prerequisite: COS 1022. (SS)

COS 1033-1 (Part-time) **0 15 5**

COS 1033-2 (Part-time) **0 9 3**

COS 1044 Clinical Application III **0 24 8**

A continued study of laboratory practices in chemistry, sanitation, sterilization, hair coloring and lash and brow tinting, artistry in hair styling, cold waving, and hair shaping. Prerequisite: COS 1033. (D)

COS 1044-1 (Part-time) **0 3 1**

COS 1044-2 (Part-time) **0 21 7**

COS 1055 Chemistry Relating to Cosmetology 3 0 3

An in-depth study of the advanced principles of chemistry as related to cosmetology. Includes definitions, descriptions, and identification through classroom study, examinations, and demonstrations on live models. Prerequisite: Successful completion of 1200 school hours and completion of COS 1004 and COS 1044. (D)

COS 1066 Hairstyling II 1 18 7

An in-depth study of the advanced principles of hairstyling. Includes hair fashion, advanced hair cutting, hair coloring, permanent waving techniques, and analysis. Emphasis is placed on design to include structure, balance, harmony, rhythm, and emphasis. Also consists of constructive and remedial techniques for damaged hair. Students must demonstrate principles and techniques on live models. Prerequisite: Successful completion of 1200 school hours and completion of COS 1004 and COS 1044. (D)

DRAFTING

DFT 101 Technical Drafting 2 9 5

An introductory study of the graphic language, principles of mechanical drawing, and orthographic projection. Skills and techniques are included in the areas of freehand lettering, geometrical constructions, sketching and shape description, multiview project, and sectional views. (F)

DFT 101F Furniture Drafting 2 6 4

An introduction to the field of drafting through the study of the graphic language. The student learns how to freehand letter, construct geometric figures, do freehand sketching, visualize shapes of objects, make multiview drawings, and construct sectional views. (F/W/S)

DFT 102 Technical Drafting 2 9 5

The application of sectional views to more complex problems, primary and secondary auxiliary views, simple and successive revolutions, and the importance of shop processes, dimensioning, and tolerancing. Includes introduction to drawing of threads, fasteners, and springs and the execution of design and working drawings. Prerequisite: DFT 101. (W)

DFT 102-1 (Part-time) 1 6 3

DFT 102-2 (Part-time) 1 3 2

DFT 102F Furniture Drafting 2 6 4

A continuation in the study of drafting and how it relates to the furniture industry. Construction details are drawn. Includes drawing joints used in furniture construction. The student makes a variety of drawings of various pieces of furniture. (F/W/S)

DFT 103 Technical Drafting 2 9 5

A study of the practices of axonometric projection, oblique projection, and perspective projection. Intersections and developments are studied, along with the drawing of gears, cams, and electronic diagrams and reproduction and control of drawings. Prerequisite: DFT 102. (S)

DFT 103-1 (Part-time) 1 6 3

DFT 103-2 (Part-time) 1 3 2

DFT 103F Furniture Drafting 2 6 4

A course designed to aid the student in freehand sketching for the purpose of communicating in the shop. Simple shapes are studied and drawn. The student progresses from the simple to the more complex drawings. Shading is also studied. (F/W/S)

DFT 104 Blueprint Reading: Mechanical 0 3 1

A study of the interpretation and reading of blueprints with information on the basic principles of the blueprint, including lines, dimensioning procedures, and notes. (D)

DFT 105 Blueprint Reading and Sketching 0 3 1

A continued practice in interpretation of blueprints as they are used in industry. Includes a study of prints supplied by industry, making plans of operations, introduction to drafting room procedures, and sketching as a means of passing on ideas, information, and processes. Prerequisite: DFT 104. (D)

DFT 110 Mechanics Drafting Interpretation I 1 3 2

A study in the interpretation and reading of blueprints. Includes development of the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Provides information on the basic principles of lines, views, dimensioning procedures, and notes. Also includes a study of components that make up the front suspension, differential assembly, and brake assemblies. (F)

DFT 111 Mechanics Drafting Interpretation II 1 3 2

A study in interpretation and reading of schematic prints and diagrams. Includes making sketches of electrical wiring and fuel system components for automotive engines and other internal combustion engines. Also covers learning to identify the various components of the systems by sketching and labeling parts. Provides practice in tracing wiring systems and diagnosing trouble by using schematics and diagrams found in the automotive service manuals. Prerequisite: DFT 110. (W)

DFT 112 Auto Body Drafting Interpretation 1 3 2

A study in the interpretation and reading of blueprints. Includes the development of the ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Provides information on the basic principles of lines, views, and dimensioning procedures as applied to the auto body. (S)

DFT 113 Blueprint Reading: Mechanical 0 3 1

A study of the interpretation and reading of blurprints. Includes information on the basic principles of the blueprint lines, dimensioning procedures, and notes. (F)

DFT 114 Blueprint Reading: Mechanical 0 3 1

A further practice in interpretation of blueprints as they are used in industry. Includes a study of prints supplied by industry, making plans of operations, introduction to drafting room procedures, and sketches as a means of passing on ideas, information, and processes. Prerequisite: DFT 113. (W)

DFT 115 Blueprint Reading: Mechanical 0 3 1

An advanced course in blueprint reading and sketching as related to detail and assembly used in machine shops. Includes the interpretation of drawings of complex parts and mechanisms for features of fabrications, construction, and assembly. Prerequisite: DFT 114. (S)

DFT 116 Blueprint Reading: Building Trade 0 3 1

A study of the principles of interpreting blueprints and specifications common to the building trades. Includes development of proficiency in making three-view and pictorial sketches. (D)

DFT 117 Blueprint Reading and Sketching 0 3 1

A continued study of the principles of interpreting blueprints and specifications common to the building trades. Provides practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches, and cavity wall construction. Aims for development of proficiency in making three-view and pictorial sketches. Prerequisite: DFT 116. (D)

DFT 118 Blueprint Reading and Sketching 0 3 1

A course designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings are studied with emphasis on the plot plan, basement and/or foundation plan, walls, and various detailed drawings of masonry work. Prerequisite: DFT 107. (D)

DFT 119 Blueprint Reading: Electrical 0 3 1

A study in interpretation of schematics, diagrams, and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams, and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes are part of this course. Prerequisite: DFT 106. (F)

DFT 120 Blueprint Reading: Welding 0 3 1

A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use, and application of welding symbols, abbreviations, and specifications are included. Prerequisite: DFT 113. (W)

DFT 121 Pattern Development and Sketching 0 3 1

A continued study of welding symbols, methods used in layout of sheet steel, and sketching of projects, jigs, and holding devices involved in welding. Special emphasis is placed on developing pipe and angle layouts by the use of patterns and templates. Prerequisite: DFT 113. (S)

DFT 201 Technical Drafting 3 9 6

An introduction to structural drawings, topographical drawings and mapping, pipe drawings, welding representation, graphs, alignment charts, empirical equations, and graphical mathematics. Prerequisite: DFT 103. (F)

DFT 201-1 (Part-time) 2 6 4

DFT 201-2 (Part-time) 1 3 2

DFT 204 Descriptive Geometry 2 4 4

A graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems are stressed with analytical verification where applicable. Visualization is stressed on every problem. Prerequisites: DFT 102, T-MAT 102. (F)

DFT 205 Design Drafting I **2 8 5**

An introduction to basic design in the study of motion transfer mechanisms as they relate to power trains. Principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings, and simplified drafting practices constitute areas of study. Various methods of specifying materials and workmanship are an integral part of the course. Prerequisites: DFT 204, T-MAT 102, PHY 102. (W)

DFT 206 Design Drafting II **2 8 5**

A research course in solving a problem in design by consulting various manuals and periodicals and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawings, assembly and subassembly drawing, pictorial drawings, exploded assembly, patent drawings, and specifications are required as a part of the problem. Prerequisites: DFT 205, MEC 210. (S)

DFT 211 Mechanisms **3 2 4**

An examination of mathematical and drafting room solutions of problems involving the principles of machine elements. Includes a study of motions of linkages, velocities, and acceleration of points within a link mechanism and layout methods for designing cam, belts, pulleys, gears, and gear trains. Prerequisites: DFT 201, DFT 204, T-MAT 103. PHY 106. (W)

DFT 212 Jig and Fixture Design **2 6 4**

A study of commercial standards, principles, practices, and tools of jig and fixture design. Individual projects and design work are assigned to acquaint the student with the types of jigs and fixtures and their design. Prerequisites: DFT 205, DFT 211. (D)

DFT 1207 Machine Drafting **1 5 3**

An introductory course in the use of instruments, lettering, orthographic drawings, and sections and views necessary to provide proper views. Emphasis is given to dimensioning. Cam layouts, motion diagrams, and timing are surveyed. Prerequisite: DFT 115 or approval of instructor. (D)

DFT 1216 Blueprint Reading **0 3 1**

A course based on industrial blueprints and standards and covering the difference between operation sheets and detailed tool drawings. Includes assembly drawings. Sketching from finished drawings to provide a better visual picture of parts is stressed. Prerequisite: DFT 1207 or approval of instructor. (D)

DRAMA

DRA 110 Recreational Drama **1 4 3**

An activity course exploring the use of drama in a recreational setting with emphasis placed upon the type of dramatic activities which can be used effectively with children, adults, and special groups. (F)

DRA 201 Introduction to Drama **2 2 3**

A survey of the basic technologies of staging plays designed to acquaint students with the techniques, arts, and sciences involved in bringing a play to an audience and to make them aware of the variety of talents, skills, and abilities necessary to produce a play. (D)

ECONOMICS

ECO 108 Consumer Economics 3 0 3

A course designed to help the student use resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing finances, increasing resources, and in better understanding the economy in which he/she believes. (W)

ECO 201 Principles of Economics I 3 0 3

A survey of basic economics. Includes the beginning of economic life, archetype preindustrial economics, the beginning of economics as a science, economic revelation, classical economics, and modern economics theory. (D)

ECO 202 Principles of Economics II 3 0 3

A study of economic activity, monetary policy, fiscal policy, the public budget, taxation, price theory, and competition. Prerequisite: ECO 201. (W)

ECO 203 Principles of Economics III 3 0 3

The role of nonprice competition, international trade and payment, economic development, and comparative systems. Prerequisite: ECO 202. (S)

ECO 204 Industrial Relations 3 0 3

A course emphasizing the history of the labor movement in the United States, the development of methods and strategies by labor organizations and by management, the shift in the means of public control, and the factors of income and economic security. Prerequisite: ECO 201. (S)

EDUCATION

EDU 101 Child Growth and Development 4 0 4

A study of the sequential development of children from infancy to seven years of age. Emphasis will be placed on the gross motor development, fine motor development, language development, and socio-emotional development of the young child. Students will be given an opportunity to assess the development of and design tasks appropriate for children at different stages of development. (F)

EDU 102 Child Growth and Development 4 0 4

A study of the sequential development of children from infancy to seven years of age. Emphasis will be placed on the gross motor development, fine motor development, language development, and socio-emotional development of the young child. Students will be given an opportunity to assess the development of and design tasks appropriate for children at different stages of development. (W)

EDU 103 Child Growth and Development 4 0 4

A study of the sequential development of children from infancy to seven years of age. Emphasis will be placed on the gross motor development, fine motor development, language development, and socio-emotional development of the young child. Students will be given an opportunity to assess the development of and design tasks appropriate for children at different stages of development. (S)

EDU 111 Seminar and Practicum 0 2 1

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem-solving activities relating to preschool children. Prerequisite: Completion of first quarter's course work or approval of instructor. (W)

EDU 112 Seminar and Practicum **0 4 2**

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem-solving activities relating to preschool children. Prerequisite: Completion of EDU 111. (S)

EDU 201 Introduction to Education **3 0 3**

A study of education as an institution in society. Emphasis is on the educational system in the United States, its functions, organization, and history. (S)

EDU 202 Pre-School Education **3 0 3**

A study of the recent trends in early childhood education, current pre-school education models, and educational philosophy of early childhood education. Emphasis is placed on experiences, facilities, media, and planning and implementing appropriate programs of various levels of childrens' development. (F)

EDU 203 Health and Nutrition **3 0 3**

A study of basic nutrition with emphasis on methods of helping young children and their families learn nutritional concepts for more healthful living. (F)

EDU 220 Methods I **3 0 3**

A course to examine the language development of children in relation to adult models and the child's early experiences. Case studies will provide opportunities to analyze problems of adult-child communication and to develop guidelines for establishing effective communication patterns with children. Exercises to develop better listening skills will be provided. Media used in reading, handwriting, spelling, and language will be examined. (F)

EDU 221 Methods II **3 0 3**

A course to enable the student to select activities and materials for developing mathematic and science experiences for preschool children. The student will learn how to assist children in manipulating, experimenting, and discovering basic number and science concepts. (S)

EDU 230 Seminar and Practicum **0 6 3**

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem solving activities relating to preschool children. Prerequisite: EDU 112. (F)

EDU 231 Seminar and Practicum **0 8 4**

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem solving activities relating to preschool children Prerequisite: Completion of EDU 230. (W)

EDU 232 Seminar and Practicum **0 12 6**

A course to develop occupational competencies through experience and practice in a simulated classroom laboratory or through on-the-job experience in a work program. The student will be given opportunities to apply knowledge acquired in previous child care studies. The student will be supervised by the instructor and/or employer. The student will participate in learning activities and problem solving activities relating to preschool children. Prerequisite: EDU 231. (S)

ELECTRICAL

ELC 100 Electronic Fundamentals **3 0 3**

A study of the use of AC/DC currents and circuits as they are employed in audiovisual equipment. The course will be an overview of electronics. (F)

ELC 101 Basic Electricity **2 3 3**

A course in the basic understanding and application of electricity to modern industrial machinery. Includes a study of direct current motors, motor controls and protecting devices, transformer, and the industrial applications of this equipment. (D)

ELC 112 Alternating and Direct Current **2 6 4**

A study of the electrical structure of matter and electron theory and the relationship between voltage, current, and resistance. Includes analysis of direct current ciruits by Ohm's Law and Kirchhoff's Law. Covers fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Also includes analysis of alternating current circuits. (F/S)

ELC 113 Alternating and Direct Current Machine Controls **2 6 4**

A course providing the basic concepts of AC and DC machines and simple control circuits. Includes basic meter and test equipment reading and care. Prerequisite: ELC 112. (F)

ELC 115 National Electrical Code **3 0 3**

A course providing instruction and application in the use of the current National Electrical Code and how it aids those concerned with electrical safety in understanding the scope and intent of the National Electrical Code. (S)

ELC 119 Industrial Electronic Control **2 6 4**

A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, basic solid state devices, and controls as related to industries. Prerequisites: ELC 112, ELC 113. (W)

ELC 121 Electrical Trouble-Shooting **2 3 3**

A training course in making electrical adjustments and related maintenance operation. Includes use of test equipment and circuit logic for fast and efficient location and repair of electrical circuits. Prerequisites: ELC 112, ELC 113 ELC 119. (S)

ELC 1112 Direct and Alternating Current 4 12 8

A study of the electrical structure of matter and electron theory and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Also includes an analysis of direct current circuits by Ohm's Law and Kirchhoff's Law, a study of the sources of direct current voltage potentials and fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance. Covers analysis of alternating current circuits. (D)

ELC 1112-1 (Part-time) 2 6 4

ELC 1112-2 (Part-time) 2 6 4

ELC 1113 Alternating Current and Direct Current and Machines and Controls 4 12 8

A study providing fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Includes instruction in the use of electrical test instruments in circuit analysis, the basic concepts of AC and DC machines and simple system controls, and an introduction to the type control used in small appliances such as thermostats and timers or sequencing switches. Prerequisites: ELC 1112, MAT 1115. (D)

ELC 1113-1 (Part-time) 2 6 4

ELC 1113-2 (Part-time) 2 6 4

ELC 1121 Electrical Machines and Control 2 2 3

An introduction to the construction, operation and utilization of direct current and alternating current machines. Covers familiarization with the various types of machine control devices. Prerequisite: ELC 1112. (D)

ELC 1122 Electrical Maintenance 3 6 5

A study of those parts of the electrical code which affect the work of the industrial maintenance electrician. Practical experience is provided in wiring, installing, and connecting the various types of services for lighting, heating, and power installations. Training is provided in trouble shooting in the identification and testing of circuits, in making mechanical adjustments, and related maintenance operations. Schematic diagrams are used showing the plan of operation for each system. Prerequisites: ELC 1113, ELC 1121. (D)

ELC 1124 Residential Wiring 5 9 8

A course providing instruction and application in the fundamentals of blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboard, lighting, fusing, wire sizes, branch circuits, conduits, and use of the National Electrical Code regulations in actual building mock-ups. Prerequisites: ELC 1113, DFT 1110. (D)

ELC 1124-1 (Part-time) 2 6 4

ELC 1124-2 (Part-time) 3 3 4

ELC 1125 Commercial and Industrial Wiring 2 9 5

A study in layout, planning, and installation of wiring systems in commercial and industrial complexes with emphasis upon blueprint reading and symbols, the related National Electrial Codes, and the application of the fundamentals to practical experience in wiring, conduit preparation, and installation of simple systems. Prerequisites: ELN 1118, ELC 1124. (D)

ELC 1125-1 (Part-time) 2 6 4

ELC 1125-2 (Part-time) 0 3 1

ELECTRONIC DATA SYSTEMS

EDP 101 Computers and Programming I (RPG) 4 4 6

An introduction to computers and computer programming. The course includes history of computers, data representation, numbering systems, flow charting, and an introduction to the RPG programming language. (F)

EDP 102 Computers and Programming II (RPG Disk-Tape) 4 4 6

A continuation of EDP 101 in which students learn advanced features of RPG and file organization on disk and tape. Prerequisite: EDP 101. (W)

EDP 103 Computers and Programming III (COBOL) 4 4 6

A study of the fundamentals of the COBOL language using structured COBOL. Prerequisite: EDP 102. (S)

EDP 104 Introduction to Data Systems 3 2 4

An introduction to the fundamental concepts and operational principles of data systems. The material and presentation are designed to familiarize non-data systems students with computer systems and their uses. (S)

EDP 108 Assembler Language 2 4 4

The study of symbolic computer languages with emphasis on a particular example of such a language. The student develops program logic and writes programs using assembler language to solve appropriate assigned problems. (D)

EDP 125 Computer Programming 2 2 3

A course designed to help students learn to write and execute computer programs in the FORTRAN language. Computerized solutions of problems in the mathematical, scientific, and engineering areas are emphasized. (F)

EDP 204 Computers and Programming IV (COBOL Disk-Tape) 4 4 6

A continuation of EDP 103 in which the student applies advanced procedures of file organization on disk and tape, utilizing structured COBOL and the report writer feature. Prerequisite: EDP 103. (F)

EDP 208 Systems Orientation 4 4 6

A survey of the techniques utilized in the development of information systems with emphasis on the role of computers. Prerequisite: EDP 204. (S)

EDP 214 Practicum I 0 15 5

A course providing practical experience in a data systems installation. The time and location vary. Prerequisite: EDP 204 and approval of instructor. (W)

EDP 215 Practicum II 0 15 5

An opportunity for the student to spend time in a data systems installation. Time and place vary. In lieu of this course, the instructor and student might agree to an independent study. Prerequisite: EDP 214 and approval of instructor. (S)

EDP 217 Data Processing Project 1 8 5

A quarter devoted to the solution of a practical case study with minimum supervision. Prerequisite: approval of instructor. (W/SS)

EDP 220 Applied Business Systems 3 0 3

A continuation of management systems applied to information data flow. Practical work in systems flow charting and analysis is implemented. The conduction of feasibility studies; the preparation and maintenance of standard practice, policies, and organization manuals; and computer applications are stressed. Prerequisite: approval of instructor. (D)

EDP 221 Programming Language Survey 2 2 3

An overview of developments in computer systems and software. The student is encouraged to develop expertise in an interactive language such as APL, BASIC, or CPS. Prerequisite: EDP 208. (S)

EDP 222 User/Vendor Programs 2 2 3

A study of the documentation, application, and use of various user/vender supplied programs. Prerequisite: approval of department. (D)

ELECTRONICS

ELN 124 Electronics Fundamentals 2 4 4

A course designed to develop a thorough understanding of basic electronic theory and principles and to introduce the student to the concepts, equipment, and components necessary to this understanding. Application of principles in the laboratory is an integral part of the course. Prerequisite: ELC 112. (F/W)

ELN 134 Intermediate Electronics 2 4 4

A direct continuation of ELN 124. Requires students to work with individual circuits and their application. Emphasis is placed on power supplies, amplifiers, oscillators, transmitters and receivers, transmission lines and antennas, switching and gating circuits, as well as the test equipment associated with the above. Identification, design and analysis, and determination of expected outputs from specific inputs of circuits are an integral part of the course. Laboratory experiments are used to substantiate theory and develop measurement techniques. Prerequisite: ELN 124. (W/S)

ELN 224 Advanced Electronics 2 4 4

A continuation of ELN 134. Includes application of handy, rule-of-thumb approximations and simple, practical approaches to designing solid-state circuits. Students also learn how to service the solid-state and digital circuits and components in home, laboratory, and industrial systems. A significant segment of the course deals with an introduction of micro-wave theory and measurements. Prerequisite: ELN 134. (S/SS)

ELN 234 Digital Electronics **2 4 4**

A systematic introduction to the digital circuits, the concepts, and the systems that are basic in nature. The goal is to lead the student from the simplest discrete switch devices, such as semiconductor diodes and transistors to the late high-speed integrated circuits and digital instrumentation systems. Laboratory experiments are utilized to substantiate thoery. Prerequisite: ELN 224. (SS)

ELN 238 Microprocessors **2 4 4**

A general overview of microprocessors designed to give the student an understanding of the fundamental concepts of microprocessors and minicomputers. Prerequisite: ELN 234. (S)

ELN 254 Electronic Instrumentation **2 4 4**

An introductory study of electronic instrumentation for measurement and control of physical variables. Course emphasis is placed on transducers used in industrial environments. Prerequisite: ELN 134. (W)

ELN 260 Communication Electronics **2 4 4**

A course to introduce the student to the basic theory of electronic circuits as used in communication. Emphasis is placed on amplitude modulation, frequency modulation, RF amplifiers, transmission lines, and antennas. Prerequisite: ELN 224. (S)

ELN 270 Consumer Electronics **2 4 4**

An introductory study of troubleshooting and repair of consumer equipment such as television, radio, stereo equipment, video equipment, and electronic games. Prerequisite: ELN 224. (S)

ELN 274 Industrial Electronics **2 4 4**

A study of the application of electronic circuits used to control industrial processes including solid-state, feed-back systems, servomechanisms, correcting devices, imput transducers, and measuring devices. Prerequisite: ELN 224. (S)

ELN 280 Electronic Troubleshooting **2 4 4**

A course designed to provide a guide to basic practical toubleshooting of electronic circuits. The student will learn to systematically analyze circuits, locate faults, and repair them effectively. Prerequisite: ELN 224. (S)

ELN 1118 Industrial Electronics Fundamentals **4 9 7**

A study of basic theory, operating characteristics, and application of vacuum tubes such as diodes, triodes, tetrodes, pentodes, and gaseous control tubes. Includes an introduction to amplifiers using triodes, power supplies using diodes, solid state theory, and other basic applications. Prerequisite: ELC 1113. (D)

ELN 1118-1 (Part-time) **2 6 4**

ELN 1118-2 (Part-time) **2 3 3**

ELN 1119 Industrial Electronic Controls **4 12 8**

A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyratron tubes, solid state devices, and other basic types and systems commonly found in most industries. Prerequisite: ELN 1118. (D)

ELN 1119-1 (Part-time) **2 6 4**

ELN 1119-2 (Part-time) 2 6 4

ENGINEERING GRAPHICS

EGR 101 Engineering Graphics I 2 4 3

An introduction to the field of drafting in which the student begins the study of lettering, geometrical construction, projections, sections, auxiliary projection, revolution, pictorial drawing, intersection, and development. The drawing of fasteners, springs, and gears; detail and assembly drawings; and tracing and reproduction methods are studied. (W)

EGR 102 Engineering Graphics II 2 4 3

An introduction to different engineering aspects by lecture-lab and student involvement. Areas covered include precision measurement as used in the machine tool industry, electronic gaging, and surveying, including an introduction to the transit, tape controlled equipment, and other topics as the need arises. (S)

ENGLISH

ENG 098 Basic Grammar I 2 3 3

The study of basic English grammar with emphasis on terminology, identification of the parts of speech and their functions within sentences, and identification of clauses and phrases. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 099 Basic Grammar II 2 3 3

The study of English grammar designed to aid the student in the improvement of self-expression, both written and oral. The approach is functional with emphasis on grammar, diction, sentence, punctuation, and spelling. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 101 Grammar and Composition 2 3 3

The study of the use of the English language through the mediums of grammar and written composition. Prerequisite: English Placement Inventory. (F/W/S/SS)

ENG 102 English Composition 3 0 3

The study of the English language through the medium of written composition, with emphasis on the development of the essay and the research paper. Prerequisite: ENG 101 or ENH 101. (W/SS)

ENG 103 Introduction to Literature 3 0 3

An introduction to three genres of literature: poetry, drama, and fiction. Course is divided into three seminars, each a study of one of the three genres. Prerequisite: ENG 102 or ENH 102. (F/W/S/SS)

ENH 101 English Honors: Composition 3 0 3

An interpretative study of classic and current fiction, with emphasis on the development of critical thought, composition skills, and research technique. Prerequisite: English Placement Inventory and recommendation. (D)

ENH 102 English Honors: Composition 3 0 3

An interpretative study of poetry, with emphasis on scholarly analysis, oral readings, and composition skills. Prerequisite: ENG 101 or ENH 101 with recommendation. (D)

ENH 103 English Honors: Literary Analysis 3 0 3

A study of the development of drama from the time of the fifth-century Greeks to the twentieth century, with emphasis on both oral and written interpretative skills. Prerequisite: ENG 102 or ENH 102 with recommendation. (D)

ENG 104 Report Writing 3 0 3

The study of organization and techniques of modern report writing, with emphasis on developing typical reports, using writing techniques and graphic devices. Prerequisite: ENG 102 or ENH 102. (W/S/SS)

ENG 105 Business Correspondence 3 0 3

A study of the basic techniques in writing business communications, with emphasis on the writing of clear, forceful, and psychologically sound letters and on the composing of clear and objective memos. (F/W/S/SS)

ENG 110 Studies in Fiction 3 0 3

The study of fiction and the major philosophical concepts and social conflicts which are presented in fiction. Prerequisite: ENG 103. (D)

ENG 201 English Literature 3 0 3

A survey of English literature from the Anglo-Saxon invasion to the Restoration Period, 449-1660. Prerequisite: ENG 103 or ENH 103. (F)

ENG 202 English Literature 3 0 3

A continuation of ENG 201 beginning with the Restoration Period, 1660, to Accession of Victoria, 1837. Prerequisite: ENG 103 or ENH 103. (W)

ENG 203 English Literature 3 0 3

A continuation of ENG 201 and 202 beginning with the Accession of Victoria, 1837, to the twentieth century. Prerequisite: ENG 103 or ENH 103. (S)

ENG 204 American Literature 3 0 3

The study of American literature from the Colonial Period through the Romantic Period, from 1607 to 1865. Prerequisite: ENG 103 or ENH 103. (F)

ENG 205 American Literature 3 0 3

The survey of American literature from the Realistic Period through the Contemporary Period, from 1865 to the present. Prerequisite: ENG 103 or ENH 103. (W)

ENG 206 American Literature 3 0 3

The study of the major American writers of the modern period, with a concentration in the novel and the drama. Prerequisite: ENG 103 or ENH 103. (S)

ENG 209 Spanish Literature in Translation 3 0 3

A study of the masterpieces of Spanish literature in the drama, poetry, short story, essay, and the novel. Not to satisfy the foreign language requirement. Prerequisite: ENG 103 or ENH 103. (D)

ENG 1102 Communication Skills 3 0 3

A study of effective communication, with emphasis on language usage in speaking and writing.

FOOD SERVICE MANAGEMENT

FSO 101 Orientation to Food Service 1 0 1

An introduction to and history of food service and the outlook for the food service industry. Broad goals and specific objectives of training with an investigation of job opportunities and personal qualifications will be included.

FSO 102 Food Preparation I 3 3 4

A study of the scientific principles of food preparation and cooking procedures, including preparation of beverages, salads, stocks, soups, sauces, and gravies.

FSO 103 Equipment Layout and Design 3 0 3

A study of institutional equipment, its use and care. The course is designed to teach methods of simplifying work through the effective use and care of large and small equipment with emphasis on time and motion economy.

FSO 104 Sanitation and Safety 3 0 3

A study of sanitation standards and safety procedures as related to food storage, preparation, and service.

FSO 106 Nutrition and Menu Planning I 3 0 3

A study of the principles of nutrition using the basic four food groups and the application of these principles to the planning of nutritionally adequate diets and other factors influencing menu planning, such as refrigeration and storage facilities, availability of seasonal foods, equipment and facilities, employee skills, eye-appealing food combinations, type of clientele, and food service.

FSO 107 Baking I 3 3 4

An introduction to the principles of and development of skills in baking.

FSO 109 Production Management 3 0 3

A study of the use of standardized recipes and portion control, work sheets, score sheets for judging food products, plan of work to improve work methods, and further emphasis on motion economy. Prerequisite: FSO 103.

FSO 112 Food Preparation II 3 3 4

A study of the scientific principles of food preparation and cooking procedures. Emphasis will be placed on meat analysis and cutting, meat, poultry, fish, and shellfish cookery. Prerequisite: FSO 102.

FSO 122 Food Preparation III 3 3 4

A study of the scientific principles of food preparation and cooking procedures, with emphasis on whole meal preparation. Included will be vegetable cookery, preparation of breakfast dishes, and appetizers. Prerequisite: FSO 112.

FSO 203 Organization and Management 3 0 3

A study of the organization structure, the application of the principles of scientific management, and the effectiveness of personnel as related to successful food service operation. Prerequisite: FSO 109.

FSO 204 Food Purchasing and Cost Control 3 0 3

The study of fundamentals of sound food purchasing methods and procedures based on cost control, specifications, quantity, and storage. Prerequisite: FSO 103.

FSO 205 Nutrition and Menu Planning II 3 0 3

A study of the principles of nutrition as applied to institutional menu planning, including the Type A lunch, cycle menus, and modified diet planning. Prerequisite: FSO 106.

FSO 206 Financial Management 3 0 3

A comprehensive study of financial management related to the food service operation, including food, labor, and equipment costs; operating and overhead expenses; personnel policies; and record keeping. Prerequisite: FSO 204.

FSO 207 Food Merchandising 3 0 3

A study of food merchandising with emphasis placed on the art of food preparation and service.

FSO 210 Supervised Clinical Education 0 24 8

A practical work experience in the student's choice of food services. The experience will be conducted under the direction of the instructor and with the cooperation of the employer.

FSO 211 Seminar 2 0 2

A course designed for job orientation and overall evaluation of the work experience.

FSO 212 Food Preparation V 3 3 4

A study of the scientific principles of food preparation and cooking procedures, including the planning and preparation of modified diets and Type A lunches. Prerequisite: FSO 202.

FURNITURE

FUR 102 Construction and Billing I 1 3 2

A course emphasizing proper construction of case goods and frame stock and including the study of basic construction theory; identification of furniture construction terms; interpretation and reading of furniture working drawing; information on blueprint lines, dimensioning, procedure, and notes; and basic knowledge of materials. (W)

FUR 103 Construction and Billing II 1 3 2

A continuation of FUR 102 with emphasis on making an accurate bill of material of each basic piece of furniture from factory drawings and specifications. Effect of construction on material, machine, and routing is discussed. Prerequisite: FUR 102 or approval of instructor. (S)

FUR 104 Characteristics of Wood 2 0 2

The study of basic structure of woods used by the furniture industry. Emphasis is placed on the characteristics that mostly affect these woods in manufacturing—moisture, kiln drying, machineability, glueing, and handling. Attention is given to veneers, particle board, and hardboard. Field trips to production plants are included. (F)

FUR 106 Abrasive Materials and Glues 2 2 3

A study of the types and materials in adhesives and abrasives currently used by the furniture industry. The course deals with applications, procedures, and equipment. Emphasis is given to defects and corrective measures for both categories. (S)

FUR 107 Finishing Methods and Materials 2 2 3

A study of the finishing methods and materials now used by the furniture industry—process of color, filling of pores, sealing, glazing, body coats, and rubbing. Emphasis is placed on various methods of drying. Covers advantages and disadvantages of material handling, equipment needs, spray guns, conveyors, and rubbing. (SS)

FUR 108 Production Equipment I 4 0 4

A course dealing with operating procedure, capacities, and safety of woodworking equipment used in the rough machine. Includes laminating, finish machine areas, cutting tools, operational responsibilities, and field trips to production plants. (F)

FUR 109 Production Equipment II 4 0 4

A continuation of FUR 108 dealing with preassemble sanding and cabinet assembly equipment. Covers special equipment for chair manufacturing, carving, and multipurpose equipment. Includes attention to material handling and department layout and field trips to production plants. Prerequisite: FUR 108. (W)

FUR 112 Routing, Scheduling, and Process 2 2 3

A comprehensive study of materials and methods of furniture manufacturing. Includes the flow of material through various departments and equipment as now used by industry; the study of main and alternate processes and their relation to cost, labor, waste, and time; the use of charts and the study of material properties and their relation to the work cycle. Prerequisites: FUR 104, FUR 102, FUR 108 or approval of instructor. (W)

FUR 201 Practicum 0 9 3

A course consisting of supervised work experience alternating with the educational program on a schedule satisfactory to employers, the institution, and the student. Enables the student to perform a planned variety of activities required of his/her specialty. The work periods are carefully planned and closely supervised by the employer and in the institution to provide experiences and responsibilities commensuate with the capabilities of the student. An official agreement among the education institution, the student, and the employer identifies the sequence of activities to be performed by the student and defines the supervisory responsibilities for the educational element of the work. Prerequisite: student registered in a two-year occupational program in the institution. (D)

GEOGRAPHY

GEO 201 Physical Geography 3 2 4

A course in physical science that emphasizes world and water formations, weather, soils, vegetation, map reading, and the relation of human activity to the physical environment. Lab reports provide practical experience in dealing with above concepts. (D)

GEO 202 Regional Geography 3 0 3

A survey of the major world regions with emphasis on the techniques of thinking geographically about world problems. (D)

HEALTH

HEA 100 Cardiopulmonary Resuscitation and Multimedia First Aid 0 2 1

A course designed to train in cardiopulmonary resuscitation and multimedia first aid procedures. Students completing both components of the course are certified by the American Red Cross. (D)

HEA 110 Gerontology I: The Aging Process 3 0 3

A course designed to provide health-related personnel and others who work with the older person in institutional, home, or community settings with a basic understanding of the physical, emotional, and social changes which the older adult must face in later life.

HEA 200 Allied Health Management Procedures 3 0 3

A course designed for students in health care fields who have had no experience in management. Includes interpersonal relationships, communications, personnel management, and work organization. Motivation and the practical aspects of organizational planning are discussed along with problem solving techniques and the ethical aspects of management. (SS)

HEAVY TRUCK MECHANICS

HTM 1101 Truck Mechanics I 4 12 8

A study of the power plants of heavy trucks which includes diagnostic procedures on Cummings, Detroit diesel catepillar, and other major engine brands. Engine systems studies will include fuel, cooling, lubrication, and other major components. Emphasis will be given to preventative maintenance operations on those systems. Students will learn to repair engines in the truck and how to remove, repair, and reinstall these engines. (F)

HTM 1101-1 (Part-time) 2 6 4

HTM 1101-2 (Part-time) 2 6 4

HTM 1102 Truck Mechanics II 4 12 8

A study of the power train of heavy trucks. Students will learn to remove, repair, and install clutches, pressure plates, clutch release bearings, transmissions (both twin and triple countershaft), differentials, and other components of heavy truck power trains. Emphasis will be given to in-truck diagnosis as well as workbench repair procedures. Prerequisite: HTM 1101.

HTM 1102-1 (Part-time) 2 6 4

HTM 1102-2 (Part-time) 2 6 4

HTM 1103 Truck Mechanics III 4 12 8

A study of chassis and suspension systems of heavy trucks. Students will learn to service and repair such components as tires and wheels, steering sector boxes, king pins, bushings, brakes, springs, and other components that comprise the suspension system and chassis components not covered in HTM 1101 and HTM 1102. Emphasis will be given to preventative maintenance as well as diagnosis and repair procedures. Prerequisite: HTM 1102.

HTM 1103-1 (Part-time) 2 6 4

HTM 1103-2 (Part-time) 2 6 4

HTM 1104 Truck Mechanics IV 4 12 8

A study of the electrical and hydraulic systems of heavy trucks. The electrical components will include diagnosis and repair of alternators, starter motors, D.C. generators, regulators, and electrical circuits that make up the electrical systems of heavy trucks. The hydraulic components studies will include lines, pumps, valves, filters, accumulators, cylinders, and other hydraulic components found on heacy trucks. Emphasis will be given to maintenance, diagnosis, and repair of these systems. Prerequisite: HTM 1103.

HTM 1104-1 (Part-time) 2 6 4

HTM 1104-2 (Part-time) 2 6 4

HTM 1105 Truck Mechanics V 3 9 6

A course to emphasize the use of servicing procedures learned in other courses. The main component of this course will be taking tractors in for service and repair. The instructor will attempt to simulate a typical service shop in which a student might find employment. The instructor will have the final authority in deciding which jobs will be taken in as he follows established college procedures. Students will be assigned repair jobs by the instructor. Instructor authorization is required before registering for this course unless HTM 1101, 1102, and 1103 have been completed. Prerequisite: HTM 1104.

HTM 1105-1 (Part-time) 1 3 2

HTM 1105-2 (Part-time) 1 3 2

HTM 1105-3 (Part-time) 1 3 2

HISTORY

HIS 101 Western Civilization 3 0 3

A survey of the ancient near East, the classical civilizations of Greece and Rome, and the new religious civilizations of the Middle Ages. (F/SS)

HIS 102 Western Civilization 3 0 3

A survey of the Ages of the Renaissance and the Reformation; exploration, colonization, and the Commercial Revolution; the Age of Absolutism; the Age of Democratic Revolutions; and the Napoleonic Era. (W/SS)

HIS 103 Western Civilization 3 0 3

A survey of the Industrial Revolution, the European political revolts of 1830 and 1848, the political unification of Germany and Italy, World War I and its aftermath, the rise of European totalitarian states, the upsurge of nationalism in Africa and the Orient, World War II, and the Cold War Communist-Free World competitive coexistence. (S/SS)

HIS 201 American History 3 0 3

The study of the origins and development of the United States through the presidential election of 1840. (F)

HIS 202 American History 3 0 3

The study of the history of the United States covering the sectional conflict, the

Civil War Reconstruction, and the Black experience in America through the 1960's. (W)

HIS 203 American History **3 0 3**
The study of the history of the United States in the twentieth century. (S)

HIS 206 North Carolina History **3 0 3**
A survey of events and developments occurring in the history of the state. Includes European background and early settlers; the Colonial, Antebellum, and Reconstruction periods; and the Modern period. (D)

HIS 207 American Ethnic **3 0 3**
A course surveying American history from the perspective of ethnic minority groups including Afro-Americans, American Indians, Oriental-Americans, and Spanish-Americans. It seeks to aid students in understanding the multi-ethnic composition of this nation of immigrants and to increase acceptance of different peoples. (D)

HUMAN DEVELOPMENT

HDEV 102 Human Potential Seminar **0 2 1**
A structured group process with emphasis on positive and constructive feedback and self-awareness. (F)

HDEV 103 Career Decision Making **1 0 1**
A course designed to aid the student in making a career-oriented assessment of abilities, personality needs, interests, and values, with additional emphasis on current manpower trends. (F)

HUMANITIES

HUM 101 Personal and Cultural Appreciation I **4 0 4**
A systematic study of the great ideas of each period of western civilization and the influence on the artistic, dramatic, literary, and musical expressions of these periods, with an emphasis on developing a greater appreciation and understanding of people and their culture. Prerequisite: ENG 103 or ENH 103. (D)

HUM 102 Humanities in the Twentieth Century **4 0 4**
A critical study of specific selections from modern literature, art, and philosophy and their relevance to American life in the rapidly changing technological and nuclear age. Prerequisite: ENG 103 or ENH 103. (D)

HUM 201 American Women's Studies **3 0 3**
A study of the history, literature, and social roles of women from colonial America to the present. (D)

INDEPENDENT STUDY

IST 199; T-IST 199; IST 1199 Independent Study **1 to 6 credit hours**
A course providing an opportunity for a student to develop a study project in any area in which professionally qualified instruction is available. The student develops the project in a conference with the advisor and instructor. Approval request forms are then approved by the registrar and the department chairman.

Credit earned generally meets elective requirements of a degree or diploma. Exact amount of credit depends on duration and depth of project but will not exceed six credit hours. (D)

IST 299; T-IST 299 Independent Study **1 to 6 credit hours**
A course providing an opportunity for the second-year student to develop a study project in any area in which professionally qualified instruction is available. The student develops the project in a conference with the advisor and instructor. Approval request forms are then approved by the registrar and the department chairman. Credit earned generally meets elective requirements of a degree. Exact amount of credit depends on duration and depth of project but will not exceed six credit hours. (D)

INDUSTRIAL SCIENCE

ISC 102 Industrial Safety **3 0 3**
An examination of problems of accidents and fire in industry. Covers management and supervisory responsibility for fire and accident prevention. Additional topics include accident reports, good housekeeping, protective equipment, accident code and fire regulations, safety instruction, use of safety committee, OSHA regulations, insurance bureau, and how to promote safety programs. (F/S)

ISC 103 Production Control **1 3 2**
A study of day-to-day plant direction, forecasting, product planning and control, scheduling, dispatching, and expediting. Care histories are discussed with corrective action developed. Prerequisite: MAT 110 or consent of instructor. (SS)

ISC 201 Industrial Organization and Management **3 0 3**
A study of organizational structure for industrial management. Covers operational and financial activities, including accounting, budgeting, banking, credit and industrial risk, forecasting and markets, and selection and layout of physical facilities. Also includes selection, training, and supervision of personnel as found in typical industrial organizations. (F)

ISC 202 Quality Control **3 0 3**
An examination of principles and techniques of quality control and cost saving. Includes organization and procedure for efficient quality control functions, responsibilities, structure, costs, reports, records, personnel, vendor-customer relationships, sampling inspections, process control, and tests for significance. (W/S)

ISC 203 Motion Study **2 2 3**
An examination of types of methods studies and their applications. Includes process charts, analysis sheets, time study, work simplification, and skill and effort rating. (W)

ISC 204 Value Analysis **3 0 3**
An introduction to the modern concept in the control of manufacturing production, providing the student an opportunity to study a production system with the specific purpose of identifying unnecessary costs. The objective of the concepts and techniques of value analysis is to make possible a degree of effectiveness in identifying and removing unnecessary costs by the use of sound decisions through a common sense approach. (S)

ISC 205 Maintenance Management 3 0 3

An examination of administration, decision making, setup, and inspection of various programs such as preventive maintenance, repair parts, inventory control, and organization and functions of maintenance. Various aspects of management, engineering resources analysis, and maintenance facilities are covered. (SS)

ISC 207 Foremanship Supervision 3 0 3

A study of the foreman's responsibility for planning, organizing, directing, controlling, and coordinating supervisory activities. Includes basic functions of an organization and supervisory responsibility in carrying out the objectives in accordance with the organization's plan. Includes such topics as establishing lines of authority, functions of departments of units, duties and responsibilities, policies and procedures, and rules and regulations. Prerequisite: BUS 272 or consent of instructor. (D)

ISC 209 Plant Layout 3 2 4

A practical study of factory planning with emphasis on the most efficient arrangements of work areas to achieve lower manufacturing costs. Covers layouts for small and medium-sized plants, layout fundamentals, and selection of production equipment and materials handling equipment. Includes effective management of men, money, and materials in a manufacturing operation. Prerequisite: DFT 102. (D)

ISC 1101 Industrial Safety 3 0 3

A study of the development of industrial safety. Includes accident occurrence and prevention, analysis of accident causes and costs, basic factors of accident control, safety education and training, accident reporting and records, employer and employee responsibility, safety organizations, first aid, mechanical safeguards, personal protective equipment use, materials handling, fire prevention and protection, safety codes, and accident statistics. (F)

ISC 1103 Production Control 1 3 2

A study of production planning, dispatching, progress reporting, and adjusting and replanning systems and charts which help effectively to control production. Material wastes controls, labor controls, indirect labor controls, and overhead controls as they relate to production control are included. (D)

ISC 1110 Time Study and Time Standards 2 2 3

A course with the primary emphasis on use of stop watch. Includes breaking down repetitive operation into elements, timing the elements, Wilk readings, operator performance rating, avoidable delays, allowances for unavoidable delays, setting time standards, timing delays, technique of work sampling, bench marks for "normal work pace," motion study such as is needed to intelligently use predetermined time standards, and practice in building up standard times for specific operations using tables of predetermined times for the elements of the operation. (D)

ISC 1113 Quality Control 3 0 3

A study in setting quality standards for customer acceptance. Includes final inspection to police these standards; prior inspections and specifications to achieve final quality standard at minimum cost; dimensions, tolerances, gages, and other techniques to control dimensions; and qualities other than dimensions which are more intangible. Covers how to set standards and police performance in such areas and receiving inspection, in-process inspection, and sampling. (D)

ISC 1121 Cost Records and Cost Estimates 3 0 3

A study of estimate of cost (materials, labor, overhead, etc.). Materials cost deals with price and grade, cost of delivery and shortage, and percent utilization. Labor cost studies deal with such factors as time required, hourly rate, quantities produced, turnover, and cost of training. Overhead costs are studied over specific periods of time with advantages and limitations of prorating overhead items of cost. Prerequisite: approval of instructor. (D)

ISC 1123 Work Measurement 3 2 4

The basic study of the principles of work simplification, motion study fundamentals, and time study techniques. Includes the use of predetermined time schedules and the use of the stop watch as they apply to task performance of the operator in the work performance. Also covers the study of flow diagrams and methods of evaluation for production purposes. Prerequisite: approval of instructor. (D)

ISC 1125 Supervisory Responsibility 3 0 3

A course dealing with such topics as fundamentals of supervision, relationships on the job, human relations, performance and job evaluation, the art of motivating people, and effective communcations. (D)

LEGAL TECHNOLOGY

LEG 101 Introduction to Paralegalism 3 0 3

An outline of the curriculum and objectives of the paralegal program, legal vocabulary, task descriptions of various paralegal jobs, professional ethics, certification and accreditation in the profession, and professional organizations. The course requires one hour per week spent in observing court. (F)

LEG 105 Legal Terminology and Vocabulary 3 0 3

An intensive course of study in legal terminology and vocabulary, including definitions, usage, derivations, and spelling. (D)

LEG 113 Family Law I 3 2 4

A course to train paralegals to assist in the competent handling of separations, divorces, annulments, and adoptions from initial interview through data collection and drafting instruments, giving notice, filing and serving documents, and setting hearing dates. (F)

LEG 114 Family Law II 3 2 4

A course to train paralegals in substantive law relating to separations, divorces, annulments, adoptions, and bastardy proceedings, with emphasis on child custody, alimony, and division of marital property. Trials concerning these topics will be discussed from initial pleadings to final dispositions of the case and the substantive law will be applied in the laboratory portion of the course. Prerequisite: LEG 113. (W)

LEG 116 Contract Law 4 0 4

A study of the role of contracts in law; essential elements of contract; interpretation, construction, and legal operation; statute of frauds; third party beneficiaries; enforcement, discharge, and breach of contracts; forms of contracts; options, purchase agreements, agreement of separation, partnerships, landlord and tenant, agency, and others. (W)

LEG 117 Torts **4 0 4**

A broad survey of tort law including personal injury and disability, negligence, malpractice, strict liability, and a broad range of intentional torts; e.g.. battery, assault, false imprisonment, and torts to property. (S)

LEG 132 Legal Research **3 6 6**

A study of the principles of legal research; case law and statutory law; codes and legislative intent; sources of law in research; primary authority and secondary authority; the subject or text approach; dictionaries, textbooks, treatises, law reviews, encyclopedias, indexes, words and phrases, and digests; the West Topic and Key Number System; the statutory approach to law; case approach to law; citations, uniform system, shepardizing; preparation of memoranda and other exercises in legal writing; and the paralegal's role in legal research. (S)

LEG 135 Legal Systems and Litigation Preparation **5 0 5**

A study of jurisdiction of state and federal courts; acquisition of jurisdiction over parties and subject matter; venue; pleadings under the North Carolina and Federal Civil Rules of Procedure, including real party in interest; splitting actions; joinder of parties and causes of action; special joinder devices; forms of pleadings and motions. The course will also include preparation of pleading, answers, cross-actions and counter-claims; use of discovery and pre-trial motions; preparation of a settlement brochure for a personal injury case; selecting jury instructions and voir dire; trial strategy and preparation. Students will work through an actual case, including mock trial and all necessary paperwork. (F)

LEG 140 Bankruptcy and Collection **4 0 4**

An introduction to the Federal Bankruptcy Act and the procedures and documents required of persons involved in bankruptcy and wage-earner proceedings. The processes used by attorneys for the collection of debt will also be covered. (W)

LEG 214 Property I **3 0 3**

A study in ownership interests in land including property generally; right of disposition; right of exclusion; right of user; classes of property; significance of distinctions between real and personal property; land transfers, in whole or in part absolute and conditional, present and future; of retained powers of ownership; of the documents and procedures necessary to establish interests in land; estates and interests in real property including estates generally, inheritable estates, freehold estates not inheritable, estates of less than freehold, and concurrent ownership. (F)

LEG 215 Property II **3 0 3**

The study of modes of acquistion and transfer of title or interest in real property including the preparation of simple contracts for sale of real estate; the deed; covenants for title in deeds; leases; mortgages and deeds of trust; adverse possession; rights in the lands of others, including easements and profits; rights of enjoyment and duties incident to ownership of real property; priorities involving recordation; private and public restrictions on the use of lands; and eminent domain and liens on real property. Prerequisite: LEG 214. (W)

LEG 216 Property III 3 0 3

The study of the examination of titles to real property in North Carolina; title examinations generally; chain of title; examination of the sources of title; objections to title; report of title and title insurance; preparation of settlement sheets and affidavits of title; and the study and function of various documents, indices, and files on public records in various county offices. Forms for abstracting title information from public records and summaries thereof and various typical problems and errors which render a title unmarketable are included. Prerequisite: LEG 215. (S)

LEG 218 Civil Procedures and Discovery 4 0 4

A study of the court system as affecting civil cases in North Carolina and including the preparation of pleadings, motions and orders, discovery materials, and post-judgment remedies, with an emphasis on appeals and appellate procedure. (W)

LEG 225 Law Office Management 3 0 3

The study of types of law practice; setting up and maintaining systems within the office, including tickler, timekeeping, client file, and bookkeeping systems; maintaining ethical standards and professional responsibility; selecting and supervising secretarial personnel; and billing and upgrading practices. Lab experiences include setting up a tickler reminder system; surveying the distribution of types of law practice in this area and equipment in typical law offices; drafting a resume; and preparing a major project on time-flow, case progress, and statutes of limitations. (W)

LEG 227 Estate Management I 3 0 3

A course in interview techniques and gathering data for preparation of wills and estate plans. Basic estate and trust principles will be included. Preparation of inventories, accounts, tax returns, and other documents for administration of estates and procedures for administration of estates for deceased persons, minors, and incompetents will be included. (W)

LEG 228 Estate Management II 3 0 3

A continuation of Estate Management I, with emphasis on preparation of federal and state inheritance, estate, and gift tax forms. Prerequisite: LEG 227. (S)

LEG 250 Clinical Practice 1 12 5

A course providing students with an opportunity to gain, under staff supervision, practical on-the-job experience in the paralegal field as an integral part of their formal education. Periodic conferences between the student, instructor, and employer and periodic seminars with others enrolled in clinical practice provide opportunities to assess the learning achieved by the student in the work experience. Prerequisite: At least four quarters in the paralegal curriculum. (S)

LIBRARY—MEDIA*

EDM 101 Introduction to Libraries and Information Centers 3 0 3

The general background and philosophy of information service, including a brief general background and philosophy of information centers and their recent developments. Includes an introduction to classification systems and organization of materials, functions and use of information centers, terminology, and a study of the duties and qualifications of the personnel who staff these centers. (F)

EDM 102 Library Processes I **3 0 3**

A study of policies and practices of acquisition of various kinds of materials, information relative to their sources, and the techniques of ordering. Includes borrowing films and film rentals, interlibrary loan materials, micro-film, etc. (W)

EDM 103 Library-Media Resources **3 0 3**

A study of general and special reference works, catalogs, and other basic sources of information. Also includes practice in preparation of bibliographies and emphasizing correct form of all kinds of media. (S)

EDM 104 Audiovisual Equipment **3 0 3**

A survey course of the nature and use of audiovisual materials. Emphasis is on the care and operation of equipment and the communication characteristics of the various non-print media. (S/D)

EDM 105 Audiovisual Equipment and Production **3 2 5**

A survey course of the nature and use of audiovisual materials. Emphasis is on the care and operation of equipment, the communication characteristics of the various non-print media, and the utilization of AV services in a learning resource center. (W/S)

EDM 201 Library Processes II **3 2 4**

A study of routine aspects of simple cataloging. Includes a study of the organization of media collections, bibliographic searching for cataloging information, practice in descriptive cataloging, production and filing of catalog cards, and physical preparation of materials for use. Prerequisite: BUS 102. (F)

EDM 202 Library-Media Procedures **3 2 4**

A study of the principles of various circulation systems and their attendant procedures. Includes supervised performance of routines that are common to information centers, such as scheduling, recordkeeping, inventory, shelving, filing, processing and mending materials, and handling equipment. (W)

EDM 203 Practicum **2 6 4**

A supervised learning experience in which students are placed in an approved location for six hours per week under a professional librarian or media specialist, putting into practice the various skills learned. In addition, two hours a week are spent in group discussion of work oriented problems and personal development. Prerequisites: EDM 101, EDM 102, EDM 103 EDM 201, EDM 104. (F/W/S/SS)

EDM 204 Practicum **2 6 4**

A continuation of EDM 203 with six hours per week of practice work in an approved location and two hours a week in group discussions of work oriented problems and personal development. Prerequisite: EDM 203. (F/W/S/SS)

EDM 206 A Survey of Children's Literature **3 0 3**

A study of children's reading interests, significant authors and illustrators, indexes to children's literature, and bibliographies and aids in the selection of children's books. Covers reading in books for children through the intermediate level. (D)

*NOTE: Library-media courses are offered in alternate years.

MACHINE SHOP

MEC 101 Machine Processes **1 5 3**

An introductory course designed to acquaint the student with basic hand tools, safety procedures, and machine processes of modern industry. Includes a study of measuring instruments, characteristics of metals, and cutting to become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming. (F)

MEC 102 Machine Processes **1 5 3**

A study of advanced operations on lathe, drilling, boring, and reaming machines. Includes milling machine theory and practice. Provides a thorough study of the types of milling machines, cutters, jig, and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed. Prerequisite: MEC 101. (W)

MEC 103 Machine Processes **1 5 3**

A study of modern machine tools of industry, including theory and practice with shaper, slotter, planner, turret lathe, screw machine, and grinding and finishing machines. Also covers gear design and the processes of gear manufacturing. Prerequisite: MEC 102. (F)

MEC 114 Shop Practice **1 6 3**

A shop practice course designed to acquaint the student with basic fundamentals of installation, maintenance, and repair of machine tools. Machine maintenance and accuracy are emphasized. Slip and press fits are produced to include bearing assembly. (W)

MEC 122 Production Procedures **4 3 5**

A study of product planning and control, scheduling, and routing of operations. Principles and techniques of quality control and cost savings, sampling inspections, and graphs and charts are emphasized. Both statistical and dimensional quality control is reviewed as well as the different processes in producing an item. Prerequisite: MEC 102.

MEC 201 Machine Processes **1 6 3**

A study of newer concepts of work handling and the automatic machining process. Includes chipless production and new techniques in metal forming. Also includes analysis of high-energy forming, ultrasonic machining, electrolytic metal removal, chemical milling, numerical controls, and simplified building block numerical control systems. Prerequisite: MEC 103. (F/D)

MEC 205 Strength of Materials **3 2 4**

A study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns, and machine components. Prerequisites: PHY 106, T-MAT 103. (F)

MEC 207 Tool Making **3 3 4**

A course surveying the actual construction of molds with topics of tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold colling, ejector pins, and multi-cavity molds. Includes selection of materials, use of inserts, two-color molding, and mold building and use. Prerequisite: PLA 107. (W/S)

MEC 210 Physical Metallugy 3 3 4

An introductory course in metallurgy covering a basic study of the properties of metals and alloys. Includes analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Also covers solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems. Prerequisite: PHY 101. (F)

MEC 211 Physical Metallurgy 3 3 4

A study of the properties of metals and alloys, the reaction of metals, diffusion, carburizing, metal bonding and homogenization, recrystallization and grain growth, age, hardening, nitriding, internal oxidation, and heat treatment of steel. Includes laboratory experiments and demonstrations. Prerequisite: MEC 210. (W)

MEC 212 Practical Automation 3 2 4

A comprehensive study of automation as it is interpreted and practiced by American industry today. Covers the fundamentals of automation and its effects in industrial productivity, labor supply and demand, equipment, and processes. Students solve problems encountered while installing an automated system. (D)

MEC 213 Production Planning 3 3 4

A study in day-to-day plant direction. Includes forecasting, product planning and control, scheduling, dispatching, routing, and inventory control. Case histories are discussed in the classroom and courses of corrective action are developed. Also includes drafting room layouts for planning and control. Prerequisites: DFT 102, MEC 201. (D)

MEC 214 Tool Engineering 3 3 3

An introduction to the problems of tool engineering with emphasis on planning the processes of production, designing, and developing the necessary tools and utilizing available manufacturing facilities. Includes practical analysis and comparison of the use and cost of tools, jigs and fixtures, dies, molds, and gauges as they are utilized in modern day manufacturing and production.Prerequisites: DFT 102, MEC 201. (D)

MEC 217 Engineering Material and Processing and Testing 3 3 4

An introductory study of the common materials used in engineering, such as woods, metals, concrete, plastics, etc., and the related physical testing to determine their properties and strengths. Emphasis is placed upon problem solving and engineering application. Prerequisite: PLA 106 or approval of instructor. (D)

MEC 235 Hydraulics and Pneumatics 3 3 4

An examination of the basic theories of hydraulic and pneumatic systems with a look at combinations of systems in various circuits. Includes basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators, and reservoirs. (S)

MEC 237 Control Systems 3 3 4

A study of hydraulic, pneumatic, mechanical, electrical, and electronic control systems and components. Covers basic description, analysis, and explanation of operation. Also includes typical performance characteristics, limitations on performance, accuracy, applications, and their utilization in industrial processes.Prerequisites: PHY 102, ELC 101. (F)

MEC 298 Mechanical Problem Solving 2 3 3

A basic study related to special problems encountered in the mechanical area. Mechanical advantages, motors, controls, and types of movements are investigated. General mechanical operations and maintenance as well as production line problems are surveyed. Prerequisite: MEC 102 or approval of instructor. (W)

MEC 299 General Maintenance and Repair 2 3 3

A course to acquaint the student with the basic fundamentals of installation, maintenance, and repair of machine tools. Emphasis is on machine maintenance and accuracy. Miscellaneous hydraulic, pneumatic, and lubrication devices are installed and maintained. Methods of rigging and machine installation, including location, leveling, and fastening, are covered. The use of precision measuring tools and checking for accuracy, squareness, and correct center distances are stressed for prestart inspection. Prerequisite: MEC 102 or approval of instructor. (S)

MEC 1101 Machine Shop Theory and Practice 4 12 8

An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care, and use of basic hand tools and precision measuring instruments; elementary layout procedures; and processes of lathe, drill press, and grinding (off-hand) and milling machines. Includes both theory and practice. (F)

MEC 1101-1 (Part-time) 2 6 4

MEC 1101-2 (Part-time) 2 6 4

MEC 1102 Machine Shop Theory and Practice 4 12 8

A course in advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, and milling machine shaper. The student is introduced to the basic operations on the cylindrical grinder and selects projects encompassing all the operations, tools, and procedures thus far used and those to be stressed throughout the course. Prerequisite: MEC 1101. (W)

MEC 1102-1 (Part-time) 2 6 4

MEC 1102-2 (Part-time) 2 6 4

MEC 1103 Machine Shop Theory and Practice 4 12 8

A course providing advanced work on the engine lathe; turning, boring, and threading machines; grinders; milling machine; and shaper. Includes an introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring of spur, helical, and worn gears and wheels. The trainee uses precision tools and measuring instruments such as vernier height gages, protractors, comparators, ect. Basic exercises are given on the turret lathe and on the tool and cutter grinder. Prerequisite: MEC 1102. (S)

MEC 1103-1 (Part-time) 2 6 4

MEC 1103-2 (Part-time) 2 6 4

MEC 1104 Machine Shop Theory and Practice 3 12 7

A course providing for the development of class projects using previously learned procedures in planning, blueprint reading, machine operations, final assembly, and inspection. Includes additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, advanced milling machine operations, etc. Covers special procedures and operations, processes and equipment, observing safety procedures, and establishing good work habits and attitudes acceptable to the industry. Prerequisite: MEC 1103. (S)

MEC 1104-1 (Part-time) 2 6 4

MEC 1104-2 (Part-time) 1 6 3

MEC 1112 Machine Shop Processes 0 6 2

A study to acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Provides experiences in the basic fundamentals of drill press and lathe operation, hand grinding of drill bits and lathe tools, and set-up work applied to the trade. (D)

MEC 1113 Shop Processes 2 3 3

A study of practices used in metalworking shops. Includes introduction to how materials can be utilized and to the processes of shaping, forming, and fabricating of metals. Includes a demonstration of the metalworking lathes, grinders, drills, milling machines, shapers, planers, saws, broachers, gear cutting machines, finishing machines, and a study of the capabilities of these machines. (D)

MEC 1114 Shop Processes 2 3 3

A comparison of the unit production and mass production systems. Casting, forging and allied processes, and welding and sheet metal working processes are demonstrated and discussed. Mass-production methods are studied in relationship to precision dimensional control. Prerequisite: MEC 1113. (D)

MEC 1115 Treatment of Ferrous Metals 2 3 3

An investigation of the properties of ferrous metals and tests to determine their uses. Includes some chemical metallurgy to provide a background for the understanding of the physical changes and their causes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron are topics for study. (S)

MEC 1116 Treatment of Nonferrous Metals 2 3 3

An investigation of the properties of nonferrous metals and tests to determine their uses. Primary interest is on aluminum, magnesium, zinc, lead, and chromium. Nonferrous alloys such as brass, bronze, bobbit, and cemented carbides are studied. A discussion of stainless steel is included. Prerequisite: MEC 1115. (SS)

MEC 1117 Basic Metals Identification 1 2 2

An elementary and practical approach to metals and their identification, classification, and basic structure with major emphasis on ferrous metals. Testing and identification tests utilize several methods including hardness, impact, tensile, color, spark, machining, and magnetic. (F)

MEC 1118 Advanced Machine Processes 3 12 7

An advanced study of the operations of the machine shop utilizing all machines. Includes instruction on gauging practices, applications to the finished product, and various gauging procedures. Students are assigned individual projects by which they gain proficiency on the various types of machines. Prerequisite: MEC 1104. (D)

MEC 1118-1 (Part-time) 2 6 4

MEC 1118-2 (Part-time) 1 6 3

MEC 1119 Advanced Machine Processes 3 9 6

A study of the more complex machines within the shop. Offers a step-by-step study of tooling for the automatic screw machines, turret lathe, and numerical tape-controlled machine. Automatic checking and clamping systems are emphasized. Prerequisite: MEC 1118. (D)

MEC 1120 Machine Repair 1 3 2

A course offering the student a look into the machines themselves. Possible reasons for machine break-down are explored. Emphasis is placed on the proper maintenance of machinery as well as preventive maintenance. Repair and maintenance manuals for various machines are reviewed. Prerequisite: MEC 1104. (D)

MEC 1121 Machine Repair 1 3 2

A continuing study of the inner parts of machinery. Special interest is placed on commercial standards, designs, and development of necessary tools and accessories. A comparison of purchase price on manufactured items of replacement parts is studied. Prerequisite: MEC 1120. (D)

MEC 1122 Production Procedures 4 3 5

A study of product planning and control, scheduling, and routing of operations. Principles and techniques of quality control and cost saving, sampling inspections, and graphs and charts are emphasized. Both statistical and dimensional quality control are reviewed as well as the different processes to produce an item. Prerequisite: MEC 1104. (SS)

MEC 1123 Shop Processes 2 3 3

A continuation in the study of methods of manufacturing parts. Metal machining is the main emphasis in this course. Further operations on metal cutting saws, lathes, milling machines, grinders, and introduction to gear cutting equipment are reviewed. How dimensional control and precision measurement coincide with drafting procedures is also covered. Prerequisite: MEC 1114. (SS)

MEC 1124 Shop Processes 2 3 3

A discussion of some of the newer concepts of work handling and automatic machining processes. Instructions are offered on automatic screw machines, turret lathes, and numerical controlled systems as well as chipless machining. Major emphasis is on the integration of drafting processes to the machined part and how each affects the other. Prerequisite: MEC 1123. (D)

MEC 1139 Basic Hydraulics and Pneumatics 3 3 4

A study of the basic theories and uses of hydraulic and pneumatic systems and the combination of systems. Includes basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, filtration, accumulators, and reservoirs. Students install and maintain the components. Prerequisite: PHY 1101. (D)

MEC 1147 Systems of Measurement and Measuring Tools 2 0 2

A basic study of measurement and the various systems. Covers how to use and read the various rules, scales, calipers, micrometers, and other precision measuring tools used in mechanical work. Also includes the reading of the basic electrical meters used in testing. (D)

MEC 1201 Machine Processes **3 12 7**

An introduction to the tools, instruments, machines, and methods used in the tool and die shop. Basic tool and die making procedures are stressed, especially as they pertain to simple blanking or bending dies and to tooling used to locate and hold parts in production. Students work on selected projects to develop a proficiency level. Prerequisite: machine shop graduate or approval of instructor. (D)

MEC 1201-1 (Part-time) **2 6 4**

MEC 1201-2 (Part-time) **1 6 3**

MEC 1202 Machine Processes **3 12 7**

An advanced study of the operation of individual parts as they pertain to tools, dies, or fixtures. Includes special training instructions on gauging practices, assembly, and its application of the finished product. Students are assigned individual projects to help develop their proficiency in the use of various types of machine tools. Prerequisite: MEC 1201. (D)

MEC 1202-1 (Part-time) **2 6 4**

MEC 1202-2 (Part-time) **1 6 3**

MEC 1203 Machine Processes **3 12 7**

A continuation of MEC 1202 providing a detailed study of die sets for the punch press and molding machinery. Emphasis is given to use of strippers, knockouts, material guides, and other supportive parts. Project work includes finish grinding, honing, and lapping as necessary to the assembly of the finished tool. Students are allowed to use their own reasoning as it pertains to the finished product. Prerequisite: MEC 1202 or approval of instructor. (D)

MEC 1203-1 (Part-time) **2 6 4**

MEC 1203-2 (Part-time) **1 6 3**

MEC 1204 Machine Processes **3 12 7**

A course including the use of die stops, ejector pins, and production feeding processes. Covers stock strip layout, selection of purchased parts for dies and molds, and survey of setup and startup procedures for tools, dies, and molds. Also includes a review of the final assembly of subparts. Prerequisite: MEC 1203 or approval of instructor. (D)

MEC 1204-1 (Part-time) **2 6 4**

MEC 1204-2 (Part-time) **1 6 3**

MEC 1205 Strength of Material **2 3 3**

A study of the principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. Includes an analysis of stresses as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns, and machine components. (D)

MEC 1207 Toolmaking **3 3 4**

A course surveying the actual construction of molds and covering tolerances, shrinkage, contours, undercuts, holes, threads, gates, runners, mold coiling, ejector pins, and multicavity molds. Includes selection of materials, use of inserts, two-color molding, and mold building and use. Prerequisite: MEC 1201 or approval of instructor. (D)

MEC 1210 Metallurgy 2 3 3

An introductory course in metallurgy covering the study of the properties of metals and alloys. Covers an analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Also includes solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems. (D)

MEC 1214 Tool Design and Planning 2 3 3

A course in planning a production area and involving isolating the areas needing tools and fixtures for production and estimating the cost for tooling the assignment. Typical tool design is employed with blueprints reflecting standard procedures. Design from the drawing board is stressed. Prerequisite: machine drawing or approval of instructor. (D)

MEC 1235 Hydraulic and Pneumatics 2 3 3

A study of the basic theories of hydraulic and pneumatic systems. Covers combinations of systems in various circuits. Also includes basic designs and functions of circuits and motors, controls, electro-hydraulic servomechanism, plumbing, filtration, accumulators, and reservoirs. (D)

MEC 1298 Special Problems in Mechanics Maximum Credit 6 hours

A course designed to broaden the students' experiences in the areas of mechanics. Includes problems involving experimentation, investigation, and writing of research report involving such topics as automobiles, mechanical operations, and general maintenance and repair required for machinery. Prerequisite: all curriculum courses. (D)

MEC 1299 Special Problems 3 6 5

A study of special problems within the metals industry such as tumbling, surface finish, and other related conditions. Each student will be required to follow a complete system from design to production stage to review conditions as viewed by production. Flashing and overheating of molded material are also discussed. (D)

MEC 1299-1 (Part-time) 2 3 3

MEC 1299-2 (Part-time) 1 3 2

MATHEMATICS

MAT 090 Arithmetic 3 2 4

A course covering the basic operations of addition, subtraction, multiplication, and division as performed on whole numbers. Includes greatest common factor, least common multiple, common fractions, and decimal fractions. Also included are ratio and proportions, percentages, and formula evaluation. Completion of this course does not earn credit toward the completion of a diploma or a degree. (F/D)

MAT 091 Algebra 3 2 4

An elementary course in algebra including topics such as operations on signed numbers, exponents, operations on polynomials, special products and factoring, algebraic fractions, solving and graphing linear equations, radicals, quadratic equations, and properties of the imaginary unit. Completion of this course does not earn credit toward the completion of a diploma or a degree. Prerequisite: MAT 090 or satisfactory score on the placement test. (F/D)

T-MAT 100 Mathematics 3 0 3

A study in practical number theory. Includes analysis of basic operations of addition, subtraction, multiplication, and division. Covers fractions, decimals, powers and roots, percentages, and ratio and proportion. Also includes plane and solid geometric figures used in industry, measurement of surfaces and volumes, an introduction to algebra used in trades, and practice in depth. (F)

MAT 101 College Math 3 0 3

A study of college mathematics including the study of polynomials, algebraic fractions, exponents, radicals, and an introduction to the metric system. Prerequisite: MAT 091 or a satisfactory score on the placement test. (F/W/S)

T-MAT 101 Technical Math 5 0 5

The first course in a three-course technical math sequence. Topics of study include the arithmetic of whole numbers, decimals, common fractions, percents, signed numbers, and algebraic expressions. (F)

MAT 102 College Math 3 0 3

A further study in college mathematics, this course includes algebraic equations, mathematical method, mathematical logic, properties of number systems, and an introduction to computers. Prerequisite: MAT 101. (W)

T-MAT 102 Technical Math 5 0 5

The second course in a three-course technical math sequence. Topics of study include linear equations, special products, factoring, algebraic fractions, and elementary plane geometry. Prerequisite: T-MAT 101 or equivalent. (W)

MAT 103 College Math 3 0 3

The third and final course of a sequence in college mathematics. Topics include vectors and matrices, inequalities, functions and relations, algebraic functions, and exponential and logarithmic functions. Prerequisite: MAT 102. (S)

T-MAT 103 Technical Math 5 0 5

The third course in a three-course technical math sequence. Topics include exponents, radicals, quadratic equations, and trigonometry. Prerequisite: T-MAT 102 or equivalent. (S)

MAT 110 Business Math 5 0 5

A course stressing the fundamental operations and their applications to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business. Prerequisite: MAT 090 or satisfactory score on placement test. (F/W/S)

MAT 111 Algebra 5 0 5

An axiomatic presentation of the real number system as an ordered field in which definitions, axioms, and theorems are used to justify the traditional algebraic processes involving such topics as algebraic fractions, factoring, absolute value, equations, inequalities, radicals, and exponents. Additional topics are various types of functions, including the exponential functions, logarithmic functions, and the circular functions. Prerequisite: MAT 101 or satisfactory score on the placement test. (F)

MAT 112 Trigonometry **5 0 5**

A continuation of MAT 111 and including the study of the trigonometric functions, identities, radian measurements, trigonometric equations, complex number, theory of equations, systems of equations, binomial theorem, probability, and sequence. Prerequisite: MAT 111. (W)

MAT 113 Analytical Geometry and Calculus I **5 0 5**

A course including the study of the coordinate system, loci, linear and quadratic graphs, conics, limits, continuity, and an introduction to differentiation. Prerequisite: MAT 112 or equivalent. (S)

MAT 201 Analytical Geometry and Calculus II **5 0 5**

A continuation of differentiation and applications of the derivative. The topics of study are related rates, maximum and minimum values of a function, Rolle's theorem, the mean-value theorem, and inflection. The indefinite intergral and its properties are also introduced. Prerequisite: MAT 113 or equivalent. (F)

MAT 202 Analytical Geometry and Calculus III **5 0 5**

A continuation of the study of the indefinite and definite integrals and their applications. Areas, volumes, moments, work, and fluid pressure are included. Also included are transcendental functions, integration by parts, integration by substitutions, and integration by partial fractions. Prerequisite: MAT 201 or equivalent.

MAT 203 Analytical Geometry and Calculus IV **5 0 5**

A study including multiple integration, approximate integration, improper integrals, indeterminate forms, infinite series, and expansion of functions and vectors. Prerequisite: MAT 202 or equivalent. (W)

MAT 214 Statistics **5 0 5**

A study of the theory of statistics and its application in modern business. Includes kinds of regularity that exist among random fluctuations and experience in associating and using mathematical models to interpret physical phenomena and predicting the outcomes of experiments related to practical business problems. Prerequisite: MAT 101 or MAT 110, T-MAT 101. (F)

MAT 220 Differential Equations **5 0 5**

A study of the methods of solution of ordinary differential equations. Prerequisite: MAT 203. (D)

MAT 1101 Fundamentals of Math **3 0 3**

A study of practical number theory. Includes analysis of basic operations of addition, subtraction, multiplication, and division. Covers fractions, decimals, powers and roots, percentages, and ratio and proportion. Also includes plane and solid geometric figures used in industry, measurement of surfaces and volumes, an introduction to algebra used in trades, and practice in depth. (F)

MAT 1101W Practical Math for Welders **5 0 5**

An in-depth review of the basic operations of addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals. The study of metric units as well as linear, angular, and surface measurements are included. Emphasis is placed on measuring and using measurements to solve welding problems. (W)

MAT 1102 Algebra **5 0 5**

A study of basic concepts and operations of algebra. Includes historical background of base-10 number system; algebraic operations, subtraction, multiplication, and division; fractions, letter representation, grouping, factoring, ratio and proportions, variation, graphical and algebraic solution of first degree equations; and solution of simultaneous equations by addition, subtraction, graphing, exponents, logarithms, tables, and interpolation. (W)

MAT 1104 Trigonometry **3 0 3**

A study of trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions and trigonometric equations. All topics are applied to practical problems. (S)

MAT 1115 Electrical Math **5 0 5**

A study of fundamental concepts of algebra; basic operations of addition, subtraction, multiplication, and division; solution of first order equations, use of letters and signs, grouping, factoring, exponents, and ratios and proportions; solution of equations, algebraically and graphically; a study of logarithms and use of tables and introduction to trigonometric functions and their applications to right angles; and a study of vectors for use in alternating current. (F)

MAT 1123 Math: Machinist **3 0 3**

An introduction to gear ratio, lead screw, and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems. Concludes with an introduction to compound angle problems. Prerequisite: MAT 1104. (SS)

MAT 1201 Trigonometry **5 0 5**

A course stressing trigonometric ratios, solving problems with right angles using tables or calculators, and interpretation of tables. Covers solving for sides or angles using the laws of sine and cosine. Includes a survey of the use of inverse functions of trigonometric equations. All topics are applied to practical problems found within a machine shop. Prerequisite: MAT 1123 or approval of instructor. (D)

MAT 1202 Uses of the Handbook **3 0 3**

A course featuring practical problems especially selected as they pertain to the manufacture of tool parts. Stresses how to read and interpret the machinery handbook to insure mastery of mathematical principles as they apply to the tool and die trade. Prerequisite: MAT 1101 or approval of instructor. (D)

MUSIC

MUS 101 Music Appreciation **3 0 3**

An historical study of music, with emphasis on simple form and analysis, instrumentation, aesthetics, masterpieces, and other significant works. (F/W/S)

MUS 102 Elementary Theory of Music I **3 0 3**

A study of basic fundamentals of music, with emphasis on ear-training, sight-singing, and keyboard harmony. The study of harmony includes note reading and notation, major scales with related and parallel minors, major and minor triads and dominant sevenths, key signatures, intervals, enharmonics, compositional devices, and rhythmic textures. (D)

MUS 103 Elementary Theory of Music II **3 0 3**

A continuation of the study of music fundamentals, with emphasis on figured bass, diminished and augmented chords, chord inversions, four-part harmonic progressions, cadences, secondary dominants, transposition, modulation, improvisation, pentatonic and whole tone scales, medieval modes, phrase structure, nonharmonic tones, pivot chords, sequences, chromatic chords, Neopolitan sixth, and chords of the ninth, eleventh, and thirteenth. Prerequisite: MUS 102. (D)

MUS 104 Elementary Theory of Music III **3 0 3**

An advanced study of music theory, with emphasis on sight-singing; rhythmic, melodic, and harmonic dictation; and keyboard harmony. This course is a more in-depth study of elements introduced in MUS 102 and MUS 103. Prerequisites: MUS 102, MUS 103. (D)

MUS 105 Chorus **0 2 1**

A group singing class, with emphasis on classical, semi-classical, and popular contemporary songs. (F/W/S)

MUS 106 Voice **0 2 1**

A study of the principles of voice production and extensive singing, with emphasis on both group singing and solo song literature. For the beginning voice student. (No knowledge of music required). (F/W/S)

MUS 107 Piano **0 2 1**

A course for students entering at any level of proficiency, with emphasis on improving playing technique. No previous experience necessary. May be used as a refresher course for those out of touch with the keyboard or as a course for those who wish to develop new skills at any level. Evaluations based on progress from one level of proficiency to another, depending on the level at which the student begins. Up to 6 credit hours may be accumulated. (F/W/S/SS)

MUS 110 Recreational Music **3 0 3**

A study of the value and use of music in a recreational program, with emphasis on instruments, aids, and materials. Practice sessions and demonstrations of teaching techniques are offered. (W)

MUS 112 Intermediate Band **0 2 1**

A small ensemble for students who have ability playing any band instrument, with emphasis on instrument mastery and performance. Evaluations based on improvement. Up to 6 credit hours may be accumulated. Prerequisite: ability to play a band instrument at the intermediate level. (W)

MUS 113 Advanced Band **0 2 1**

A large ensemble for students who have an advanced ability and experience playing any band instrument, with emphasis on extending instrument mastery, playing a variety of musical styles, and learning a variety of musical interpretations. Evaluations based on improvement. Up to 6 credit hours may be accumulated. Prerequisite: ability to play any band instrument at the high school level. (F/W/S/SS)

MUS 102 Guitar **0 2 1**

A study of guitar, with emphasis on developing finger dexterity, forming chords, strumming, rhythmic patterns, and tuning the guitar. Lessons are presented in logical sequential steps. The course stresses good musicianship and teaches proper playing techniques. The overall course content is concerned with theory, harmony, reading from musical notation, and rhythm. (D)

MUS 201 American Music **3 0 3**

A study of Western music as it existed and exists on the American continent from 1640 to the present, including music from all genres, Afro-American, and Indian music. (D)

MUS 202 Romantic Period **3 0 3**

A study of the music of the Romantic period, the development of program music, German and Italian opera, late Romantic music, Nationalism, Impressionism, and post-Romantic music. The course will begin with a study of the works of Beethoven and will cover the major composers such as Schubert, Chopin, Liszt, Berlioz, Strauss, Wagner, Verdi, Tchaikovsky, Brahms, Debussy, and Ravel. (D)

NUCLEAR MEDICINE TECHNOLOGY

NMT 101 Nuclear Medicine Technology I **1 0 1**

An orientation to the field of nuclear medicine technology. Elementary patient care procedures and professional ethics are emphasized. (F)

NMT 102 Nuclear Medicine Technology II **1 0 1**

An introduction to the radiopharmaceuticals and instrumentation used in nuclear medicine. Radiation safety procedures are discussed. Prerequisite: NMT 101. (W)

NMT 103 Nuclear Medicine Technology III **1 0 1**

A study of the *in-vivo* nuclear medicine procedures. Patient preparation for these procedures is emphasized. Prerequisite: NMT 102. (S)

NMT 104 Nuclear Medicine Technology IV **2 0 2**

A continuation of the nuclear medicine technology which emphasizes special *in-vitro* procedures. Prerequisite: NMT 103. (SS)

NMT 111 Principles of Nuclear Medicine I **2 0 2**

An introductory course in clinical nuclear medicine. The basic principles of the major *in-vivo* studies and major clinical nuclear medicine procedures are introduced. Prerequisite: NMT 104. (F)

NMT 116 Nuclear Physics **2 0 2**

An introduction to the basic concepts of atomic and nuclear radiation physics. Nuclear decay schemes and concepts of radioactive decay are discussed, followed by a thorough discussion on the interactions of radiation with matter. Prerequisite: NMT 104. (F)

NMT 117 Health Physics **1 0 1**

An introduction to radiation safety techniques for reducing exposure to physicians, technologists, and patients. Atomic Energy Commission and state regulations and montoring methods for nuclear medicine departments are emphasized. Prerequisite: NMT 111. (W)

NMT 129 Practicum I **0 12 4**

A program of directed clinical learning experiences in special areas of the nuclear medicine laboratory. Radionuclide generators, radiation safety, and management and administration of nuclear medicine department are presented in lecture series. Prerequisite: NMT 103. (SS)

NMT 221 Principles of Nuclear Medicine II **2 0 2**

A study of the principles and applications of radionuclide studies of the gastrointestinal and cardiopulmonary systems. Prerequisite: NMT 111. (W)

NMT 223 Radiopharmaceuticals I **2 0 2**

An introduction to radiopharmacy functions, production of radionuclides, quality control and radiopharmaceuticals, and radiopharmacy mathematics. Prerequisite: NMT 111. (W)

NMT 230 Nuclear Medicine Instrumentation I **3 2 4**

A study of practical design of radiation detection instruments and circuit construction. Use of such instruments as the Geiger-Muller counter, ionization chambers, proportional counters, and radiation monitoring devices are discussed. Statistics related to nuclear counting are introduced. Prerequisite: NMT 111. (W)

NMT 233 Radiopharmaceuticals II **2 0 2**

A study of radiopharmaceuticals used in nuclear medicine departments on a routine basis. Radiopharmaceuticals of historical and research interest are emphasized. Prerequisite: NMT 223. (S)

NMT 240 Nuclear Medicine Instrumentation II **3 2 4**

A study in detail of the use of well counter, scanners, cameras, and single channel and multichannel analyzers as related to clinical nuclear medicine. Emphasis is placed in NaI (Tl) detectors, Geli detectors, amplifiers, spectrometers, ratemeter, and scales. Prerequisite: NMT 230. (S)

NMT 241 Principles of Nuclear Medicine III **2 0 2**

A detailed study of principles and applications of radionuclide studies of the endocrine and central nervous systems. Prerequisite: NMT 221. (S)

NMT 251 Principles of Nuclear Medicine IV **2 0 2**

A detailed theoretical consideration of standard *in-vivo* laboratory tests and radionuclide studies of the skeletal and urinary systems. Prerequisite: NMT 240. (SS)

NMT 255 Introduction to Radioimmunoassay **1 2 2**

A review of the basic units of measurement with emphasis on the metric system. The organization of living matter from the chemical view is discussed. Emphasis is placed on protein structure and competitive protein binding analysis. Prerequisite: NMT 104. (F)

NMT 256 Nuclear Chemistry 3 2 4

A course of study that deals with fundamental concepts, empirical and molecular formulas, solutions and colloids, chemical reactions and equations, acids and bases, buffer solutions, and organic compounds. (F)

NMT 268 Open Lab Practicum I 0 6 2

A clinical experience as conducted under evening and weekend emergency conditions. Prerequisite: NMT 104. (W)

NMT 269 Practicum II 0 24 8

A course featuring practical experience in a clinical setting with emphasis on scanning. Radiation protection practices and rountine quality control of the instruments is observed and used. Prerequisite: NMT 129. (F)

NMT 273 Open Lab Practicum II 0 6 2

A clinical experience conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 268. (S)

NMT 274 Practicum III 0 24 8

A practical experience in a clinical setting with emphasis on the more advanced applications of nuclear medicine procedures. Preparation and use of radiopharmaceuticals and preparation of the patient for such studies as bone and 67GA are included. Prerequisite: NMT 269. (W)

NMT 278 Open Lab Practicum III 0 6 2

A clinical experience conducted under evening and weekend emergency situations with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 268. (SS)

NMT 279 Practicum IV 0 24 8

A practical experience in a clinical setting with emphasis on *in-vitro* procedures and therapeutic use of radionuclides. The course also relates all theory presented during the first three quarters of practicum. Prerequisite: NMT 274. (S)

NMT 283 Open Lab Practicum IV 0 6 2

A clinical experience in NMT 284 as conducted under evening and weekend emergency conditions with more emphasis on student participation in clinical procedures and patient contact. Prerequisite: NMT 278. (SS)

NMT 284 Practicum V 0 24 8

A more detailed study in the design and use of specific instruments utilized in clinical nuclear medicine. Emphasis is placed on the performance of more advanced studies in *in-vitro* and *in-vivo* procedures employing radioisotopes and practical therapeutic use of radionuclides. Prerequisite: NMT 279. (SS)

NMT 289 Radiobiology 2 0 2

A course in which the fundamentals of radiobiology, a system's sensitivity to radiation (normal and neoplastic), radiation pathology, and the biological effects of radiation are stressed. Emphasis is placed upon the effects of radiation and the effects of radiation absorption on tissue and tissue recovery rate. Prerequisite: NMT 221. (S)

NMT 290 Nuclear Medicine Technology Seminar 2 0 2

A review of specific topics of nuclear medicine technology of special interest to students. Papers on such topics are presented by guest speakers. Prerequisite: NMT 241. (SS)

NURSING—ASSOCIATE DEGREE

NUR 101 Fundamentals of Nursing **6 9 9**

A course designed to provide a foundation for all subsequent courses in nursing. Students are provided with opportunities to learn the principles and techniques which are basic to the effective and safe nursing care in meeting the needs common to all patients. Emphasis is placed on the patient's environment, hygienic needs, communications skills, observational skills, planning nursing care, recording, medical and surgical asepsis, and supplementary nursing functions. A variety of approaches are utilized for the development of the basic techniques and skills necessary to meet the basic needs of man. (F)

NUR 102 Nutrition **3 0 3**

A practical study of nutrients, how they are used by the body, and sources and types of food necessary for the balanced diet in development, with ethnic variations. Physiological processes of digestion, absorption, and metabolism are discussed. An introduction to the most commonly used hospital diets is included. (F)

NUR 103 Pharmacology **3 0 3**

A presentation of facts concerning sources, effects, legalities, and usage of therapeutic agents. Conversion between systems, prescriptions of medications, drug classifications, and nursing implications are covered. Emphasis is placed on the nurse's responsibility in relation to drug administration. Prepares the student for the process of administering and computing dosages of therapeutic agents. Practice opportunities are available in both classroom and clinical sessions. Prerequisite: basic math. (W)

NUR 104 Medical-Surgical I **8 0 8**

A course providing beginning knowledge of the nursing care of patients with common problems caused by illness. Symptoms of illness, classification of diseases, preoperative and postoperative care, long-term illness, and rehabilitation are included. Nursing needs of the patient with disorders and/or diseases of the cardiovascular and respiratory systems are stressed. Principles related to the care of patients with long-term illness, in geriatric situations, during rehabilitation nursing, as well as the patient with cancer and the dying patient are introduced. Prerequisite: NUR 101 through NUR 102. Corequisite: NUR 105. (W)

NUR 105 Medical-Surgical I Lab **0 15 5**

A series of objective-centered learning experiences using selected patients in the medical-surgical units in area hospitals to develop the skills needed to demonstrate the knowledge learned in NUR 104. The emergency room, operating room, and recovery room are utliized. Agencies and intermediate and extended care facilities may be utilized for observation experiences. Prerequisite: NUR 101 through 102. Corequisite: NUR 104. (W)

NUR 106 Maternal-Infant Health I **4 0 4**

A course designed to provide the student with opportunities to acquire knowledge and understanding needed to render safe and effective nursing care to the maternity patient, the newborn infant, and the infant's family. Prerequisite: NUR 101 through 105. Corequisite: NUR 107. (S)

NUR 107 Maternal-Infant Health I Lab **0 6 2**

A series of objective-centered sessions using selected patients in the obstetrical units of area hospitals to develop skills needed to apply the knowledge learned in NUR 106. Experiences in selected clinics are planned to stress the scope of maternal-infant health care. Prerequisite: NUR 101 through 105. Corequisite: NUR 106. (S)

NUR 108 Child Health Nursing I **4 0 4**

A course providing the student with opportunities to acquire the knowledge and understanding needed to render safe and effective nursing care to the child from infancy through adolescence and to his/her family. Prerequisite: NUR 101 through 105. Corequisite:NUR 109. (S)

NUR 109 Child Health Nursing I Lab **0 6 2**

A series of objective-centered sessions using selected patients in area hospitals to develop the skills needed to apply knowledge learned in NUR 108. Experiences in selected clinics are planned to stress the scope of child health care. Prerequisite: NUR 101 through 105. Corequisite: NUR 108. (S)

NUR 110 Medical-Surgical II **6 0 6**

The study of diseases/disorders of body systems. Covers etiology, diagnosis, treatment, and nursing care during these conditions of illness. Communicable diseases of the adult as well as disaster and emergency nursing are included. Patient teaching and rehabilitation are stressed as intrinsic aspects of the nursing process. Prerequisite: NUR 101 through NUR 109. Corequisite: NUR 111. (SS)

NUR 111 Medical-Surgical II Lab **0 18 6**

A series of objective-centered learning experiences using selected patients in the medical-surgical units of area hospitals to develop the skills needed to demonstrate knowledge learned in NUR 110. Functioning as a member of the nursing team and the utilization of all health team members to promote and achieve total patient care are important aspects of this experience. Prerequisite: NUR 101 through NUR 109. Corequisite: NUR 110. (SS)

NUR 112 Nursing Seminar I **3 0 3**

A study of the legal and ethical responsibilities, professional organizations, and job opportunities available to the licensed practical nurse. The North Carolina Nurse Practice Act is emphasized. The importance of an availability of continued education is stressed. Applications for writing the State Board of Nursing Licensing Examination for Practical Nurses are completed and submitted at the end of this course. The seminar method of instruction is utilized and opportunity made for discussion of special interests of the students. Prerequisite: NUR 101 through NUR 109. (SS)

NUR 200 Psychiatric Nursing **6 0 6**

A study of the nurse's role in functioning therapeutically and in individual interpersonal relationships with the mentally ill patient who requires hospitalization at some point during the patient's illness. Emphasis is placed on cognizance and utilization of self as a therapeutic agent, identification of personality, and behavior deviations. Synthesis and intergration of information acquired in all other courses is expected throughout the course. Prerequisite: all NUR 100 courses, BIO 135. Corequisite: NUR 201. (SS/W)

NUR 201 Psychiatric Nursing Lab **0 9 3**

A series of objective-centered learning experiences using selected patients in psychiatric units of area hospitals to develop the skills needed to demonstrate knowledge learned in NUR 200. Synthesis and intergration of skills acquired in all other courses is expected. Prerequisite: all NUR 100 courses, BIO 135. Corequisite: NUR 200. (SS/W)

NUR 202 Maternal-Infant Health II **4 0 4**

A study of nursing intervention during the maternal cycle including intensive care of premature infants. Emphasis is placed on family-centered care and health teaching, recognition of deviations from the normal, and planning nursing care for individuals or groups. Utilization of cognitive, judgmental, and manipulation skills, drawing from knowledge acquired through related courses is stressed in assessing, implementing , and evaluating via the nursing process. Prerequisites: NUR 200, NUR 201. Corequisite: NUR 203. (F/S)

NUR 203 Maternal-Infant Health II Lab **0 6 2**

A series of objective-centered learning experiences using selected patients in the maternity units of area hospitals and other health agencies to develop the skills needed to demonstrate the knowledge learned in NUR 202. Prerequisites: NUR 200, NUR 201. Corequisite: NUR 202. (F/S)

NUR 204 Child Health Nursing II **4 0 4**

A study of nursing intervention during childhood form infancy through adolescence. Emphasis is placed on family-centered care and health teaching, recognition of deviations from the normal, and planning nursing care for individuals or groups. Utilization of cognitive, judgmental, and manipulation skills, drawing from knowledge acquired through related courses is stressed in assessing, implementing, and evaluating via the nursing process. Prerequisites: NUR 200, NUR 201. Corequisite: NUR 205. (F/S)

NUR 205 Child Health Nursing II Lab **0 6 2**

A comprehensive study of biological, social, and emotional components of frequently occurring illness. Orientation is based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems is stressed. Use of pediatrics units of area hospitals and other health agencies is planned to develop the skills needed to demonstrate the knowledge learned in NUR 204.Prerequisites: NUR 200, NUR 201. Corequisite: NUR 204. (F/S)

NUR 206 Medical-Surgical III **6 0 6**

A comprehensive study of biological, social, and emotional components of frequently occurring illness. Orientation is based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems is stressed. Prerequisite: NUR 200 through NUR 205. Corequisite: NUR 207. (W/SS)

NUR 207 Medical-Surgical III Lab 0 15 5

A comprehensive study of biological, social, and emotional components of frequently occurring illness. Orientation will be based on concepts with underlying principles and actions denoted. Implementation of the management of patient care and leadership roles within the role of the technical nurse during major health problems is stressed. Use of medical-surgical units of area hospitals and other health agencies is planned to develop the skills needed to demonstrate the knowledge learned in NUR 206. Oportunity is provided for using previously acquired knowledge in planning and implementing nursing care for groups or individuals. Prerequisite: NUR 200 through NUR 205. Corequisite: NUR 206. (W/SS)

NUR 208 Medical-Surgical IV 6 0 6

A comprehensive study of biological, social, and emotional components of frequently occurring illness with emphasis upon the rehabilitative and adaptive processes. Prerequisite: NUR 200 through NUR 207. Corequisite: NUR 209. (S/F)

NUR 209 Medical-Surgical IV Lab 0 18 6

A series of selected learning experiences to assist the student in the development of the ability to formulate and utilize previously and concurrently acquired skills so that comprehensive planning and competent application of cognitive, affective, and manipulative skills are employed in the care of the patient(s) in all age groups and in a variety of situations. The student is given the opportunity to plan, direct, and evaluate total patient care for groups and/or individuals using the instructors as the principle resource. Prerequisite: NUR 200 through NUR 207. Corequisite: NUR 208. (S/F)

NUR 210 Seminar II 3 0 3

A study of the role and responsibilities of the registered nurse. The leadership role and various methods of managing patient care are emphasized. Current trends, transitional concerns, employment opportunities, and continuing education are stressed. The seminar approach is utilized to meet the individual needs of the students. Prerequisites: NUR 200 through NUR 207. (S/F)

OCCUPATIONAL THERAPY ASSISTANT

OTA 101 Orientation to OTA Program and Introduction to Occupational Therapy 3 3 4

A two-week pre-quarter orientation for students entering program. Includes field visits to clinical sites providing occupational therapy services for the purpose of identifying roles of occupational therapy personnel and introduction to medical terminology and health care services. (SS/F)

OTA 102 Occupational Therapy Theory I 3 1 3

An introduction to the art and science of occupational therapy including the history of the profession, practice arenas, and discussion of the role of the Association. Emphasis will be on identification of roles and responsibilities of the COTA, standards of practice, socio-cultural influences affecting occupational therapy, and accountability and ethics. Level I field work experiences to be incorporated into lab sessions. Discussion and field experiences will highlight relationship of occupational therapy to other health services. (F)

OTA 103 Major Crafts and Their Application 1 4 3

A course devoted to the development of skills in major crafts including woodworking, weaving, and leatherwork. The use of and adaptation of these activities in therapeutic programs will be intergrated with the learning of skills. Care and maintenance of equipment and materials will be emphasized. Prerequisites: OTA 101 and OTA 102. (F)

OTA 104 Occupational Therapy Theory II 3 2 4

A study and analyzing of daily life tasks and activities including self care, work and play/leisure skills. Concepts of activity analysis, adaptation, and role mastery will be reviewed in conjunction with normal growth and development. Individual and group instructional techniques will be stressed. Prerequisites: OTA 101, OTA 102 and PSY 210. (W)

OTA 105 Occupational Therapy Theory III 3 2 4

A course emphasizing the occupational therapy treatment process. Basic principles of screening, program planning, and implementation of programs for clients with biopsychosocial disorders will be stressed. Programs for pervention and remediation of health disorders will be developed and analyzed from actual field experience case studies. Professional skills of information gathering, goal setting, and selecting and planning use of occupational therapy techniques will be mastered by the student. Prerequisites: OTA 104 and BIO 108. (S)

OTA 106 Occupational Therapy Media 1 4 3

A course emphasizing the value of activities in life and in occupational therapy. Concepts of activity analysis will be introduced. Prerequisite: OTA 101. (F)

OTA 201 The Mature Years—Gerontology 3 2 4

A course focusing on the latter half of the life span, including concepts of the aging process, retirement, and physical, emotional, and social adjustment. Emphasis will be on occupational therapy programming for geriatric citizens living in various environments. Field experiences will include visiting and participating in geriatric programs. Prerequisite: OTA 105. (W)

OTA 202 Occupational Therapy IV 3 3 4

An expansion of OTA 105. The occupational therapy treatment process for clients with biopsychosocial disorders will be stressed. Occupational therapy treatment process will be studied and reinforced with related field work. Prerequisite: OTA 105. (F)

OTA 203 Occupational Therapy Theory IV 3 2 4

The student will have an opportunity to develop additional skills in delivering occupational therapy services through increased responsibilities in fieldwork placements. Course will also cover concepts of behavior management, group process, program administration and support, supervision, and current issues and problems in occupational therapy including health care costs and non-traditional service delivery. Prerequisite: OTA 202. (W)

OTA 204 Occupational Therapy Fieldwork 0 40 13

Full-time (40 hours a week) supervised fieldwork in a prearranged clinical site. Emphasis will be on the application of academically acquired bodies of knowledge. The student will be provided with indepth experiences in and responsibility for delivery of services to clients/patients with appropriate occupational therapists, registered, supervision leading to the performance level expected of an entry-level occupational therapy assistant. (OTA 204 includes two sustained one-month placements in appropriate centers.) Prerequisites: All OTA courses. (S)

OTA 205 Optional Occupational Therapy Fieldwork **0 40 13**

A placement designed for those students that wish to have field experiences above the minimum required in OTA 204. These may be in specialized service delivery areas or in traditional areas as used in OTA 204. Prerequisites: All OTA courses. (SS)

PHILOSOPHY

PHI 201 Introduction to Philosophy **3 0 3**

A study of various alternative philosophies concerning the nature of truth, ethics, happiness, society, and religion. Emphasis is placed on the insights of the great philosophers as well as assisting the student in developing a personal philosophy of living. (F/W/S/SS)

PHOTOGRAPHY

PHO 101 Basic Photography **2 2 3**

A study of fundamental photographic equipment and materials. Both still and movie camera principles are studied in relation to the field of design and visual communications. (F/W/S/SS)

PHO 201 Advanced Photography **2 2 3**

A course in advanced photographic techniques and materials. Participation in studio lighting, copying, and photography of various objects of artificial light permit a wider use of photography in visual communications. Prerequisite: PHO 101 or demonstrated skill. (D)

PHYSICAL EDUCATION

PED 101 Physical Activities for Children **2 2 3**

A recreation course based on games for children beginning with the pre-school child. The student will explore activities and materials for promoting the physical development of young children. Special emphasis will be on body movements, exercise, and dance. Various instructional techniques used in music, drama, and physical education will be emphasized. (S)

PED 110 Archery **0 2 1**

A course designed to teach the student the fundamentals, skills, history, and rules, with special emphasis on safety practices, etiquette, and value which carry over into a useful leisure time activity. (F)

PED 111 Badminton **0 2 1**

A course which deals with beginning skill in the basic strokes and a general knowledge of the history, rules, and strategy of the game. (W)

PED 112 Bowling **0 2 1**

A study of the fundamentals of ball selection, grips, stance, and delivery along with rules, history, and scoring. Special emphasis is placed on spot bowling. (W)

PED 113 Golf **0 2 1**

A course designed for teaching the grips, stance, and use of various clubs, along with history and etiquette of play. (F/S)

PED 114 Physical Fitness **0 2 1**

An introduction to physical activity with emphasis being placed on the cardiovascular system, strength, and efficiency in executing basic skills which may arise in play and daily living. (F/W/S/SS)

PED 115 Tennis **0 2 1**

An elementary course in the history, rules, and regulations. Emphasis is placed on the fundamentals of the game with prime consideration given to strokes and footwork. (F/S/SS)

PED 116 Beginning Skiing **0 2 1**

An elementary course for the non-skier designed to get the individual to the point of skiing proficiently. (W)

PED 117 Beginning Swimming **0 2 1**

A course designed for the non-swimmer. Includes basic strokes and water safety based upon American Red Cross programs of instruction. (S/SS)

PED 118 Aerobic Dancing **0 2 1**

A physical fitness program which offers complete body conditioning. Dance patterns with unique musical arrangements are utilized to promote toning and strengthening of muscles and cardiovascular fitness.

PED 119 Tumbling and Gymnastics **0 2 1**

A course dealing with the beginning of tumbling, stunts, and gymnastics. Special emphasis is placed on the safety of these activities and correct body balance and form. (W)

PED 120 Handball **0 2 1**

A course designed to teach the fundamental skills, rules, history, and strategy of handball with emphasis placed on practice and skill development. (D)

PED 125 Basic Backpacking and Climbing **0 2 1**

A course designed to introduce the student to the sport of backpacking and rock climbing. (D)

PED 130 Basketball **0 2 1**

A course designed to study the rules, strategy, and history as well as the fundamental skills of beginning basketball. (W)

PED 132 Soccer **0 2 1**

A course covering the fundamental skills, history, rules, and strategy with emphasis placed on practice and execution of activity skills. (F)

PED 133 Softball **0 2 1**

The study of history, rules, skills, and strategy with emphasis on defensive play by positions. (S)

PED 134 Volleyball 0 2 1

A course designed to include the fundamental skills, history, rules, and strategy of the game with special emphasis on carry-over value of activity. (W)

PED 135 Canoeing 0 2 1

A course including lectures and laboratory practices in the basic skills of lake and river canoeing. All basic strokes and fundamentals of canoe safety and rescue are emphasized. It is recommended that students be able to swim before registering for this course. (F/S/SS)

PED 140 Ice Skating 0 2 1

A course designed to develop and improve fundamental skills and techniques in ice skating. (W)

PED 141 Horseback Riding 0 2 1

A course designed to acquaint students with the western style of riding, equipment, handling of horses, the aids, mounting, trail riding, and care of the horse. Emphasis is placed on the development of equestrain skills, safety, coordinated horse-rider balance, and proper care of horses (F/S/SS)

PED 142 Advanced Horseback Riding 0 2 1

A course designed to give the novice rider a more intense experience riding horses in a variety of specialized situations and to further acquaint the student with horses′ behavior, equipment, the aids, and care of the horse. Emphasis is placed on the development of skills in jumping, rodeo games, and trail riding. Prerequisite: PED 141 or demonstrated skill. (S/SS)

PED 151 Modern Dance 0 2 1

A course designed to develop and improve fundamental skills in dance movements and techniques and to encourage appreciation of dance as an art form and medium of education. (W)

PED 152 Folk and Square Dance 0 2 1

A course in the development and successful performance of dance skills in regional American folk dances. (W)

PED 154 Beginning Social Dance 0 2 1

A course designed to provide students with the basic fundamentals of popular dancing. Provides the students with information which will help them enhance their social life and give them an appreciation for dancing. (F/W/S/SS)

PED 155 Advanced Social Dance 0 2 1

A course designed to provide students with advanced fundamentals of popular dancing. All instruction is directed toward students′ abilities to perform the movements with expertise. Stress is put on rhythm, appearance, and routine sequence. Prerequisite: PED 154 or approval of instructor. (F/W/S/SS)

PED 160 Individual Activity 0 2 1

A course providing specialized activities approved by the physical education and recreation department for a particular student. (D)

PED 180 Personal and Community Health 3 0 3

A course designed to develop an awareness of the personal, community, and worldwide importance of health. Special emphasis is placed on the physical, mental, and emotional aspects of the human body. Health problems, their causes and prevention are also stressed. This course may not be used as a substitute for required P.E. activity courses. (D)

PED 185 First Aid and Safety **3 0 3**
A course presenting the skills, techniques, and knowledge needed to have a safe environment. Adequate class time is reserved for practical demonstrations of first aid safety. Students are provided the opportunity to obtain the standard first aid certificate. This course may not be used as a substitute for required P.E. activity courses. (W)

PED 200 Intermediate Tennis **0 2 1**
A course designed to develop a higher level of neuromuscular skill, coordination, balance, endurance, and tennis strategy. Prerequisite: student must have passed beginning tennis (PED 115) with a grade of "C" or better or have the approval of the instructor.

PED 201 Introduction to Physical Education **3 0 3**
An introductory course to acquaint the student with the principles and philosophy of physical education. Special emphasis is placed on the sociological, physiological, and psychological objectives of physical education and the professional preparation essential to become a physical educator. (F)

PED 212 Kinesiology **3 2 4**
A course presenting the basic concepts of the study of human movement with an emphasis on normal voluntary movement. It includes specialized study of the human musculoskeletal and nervous systems. Prerequisite: BIO 108. (F)

PED 213 Advanced Golf **0 2 1**
A course designed to further develop the skills learned in beginning golf. The majority of class time is spent at a local golf course. Prerequisite: PED 113 or approval of instructor. (F/S/SS)

PED 215 Advanced Tennis **0 2 1**
A course designed to develop the skills learned in PED 115 with special emphasis on singles and doubles strategy and tournament play within the class. Prerequisite: PED 115 or approval of instructor. (F/S/SS)

PED 216 Advanced Skiing **0 2 1**
A course designed for advanced students to perfect skills in the following areas: slalom, down-hill racing, turns, and jumps, with emphasis on control and safety. Prerequisite: PED 116 or approval of instructor. (W)

PHYSICAL SCIENCE

PHS 101 Man and His Physical Environment **3 2 4**
An integrated perspective of the physical sciences with study of selected topics such as systems of measurement, the expanding universe, structure of earth, kinetic molecular theory of matter, energy (types, transformations, utilization), properties of elements and compounds, and structure and utilization of atoms. Covers the role of science in the development of civilization. (F /SS)

PHS 102 Man and His Physical Environment **3 2 4**
A continuation of PHS 101. Prerequisite: PHS 101. (W/SS)

PHS 103 Man and His Physical Environment 3 2 4

A continuation of PHS 102. Prerequisite: PHS 102. (S/SS)

PHYSICS

PHY 101 Physics: Work, Energy, Power 3 2 4

A study of the major areas of work, energy, and power. Instruction includes such topics as statics, forces, center of gravity, and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas. (F)

PHY 102 Physics: Properties of Matter 3 2 4

A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws, and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course. Prerequisite: PHY 101. (W)

PHY 103 Physics: Electricity 3 2 4

A study of the basic theories of electricity, types of electricity, methods of production, and transmission and transforming of electricity. Electron theory. electricity by friction, electricity by chemical action, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage, and transformers are major topics in the course. Prerequisites: PHY 102, T-MAT 102. (S)

PHY 106 Applied Mechanics 5 0 5

A study of the concepts and principles of statics and dynamics. Includes parallel concurrent and noncurrent force systems in coplanar and noncoplanar situations. Also covers concepts of centroids and center of gravity, moments of inertia, fundamentals of kinetics, and kinematics of velocity and motion. Prerequisites: T-MAT 103 T-PHY 102. (S)

PHY 107 Physics 3 2 4

A course emphasizing the fundamentals of electrical and radiation physics and the basic principles underlying the operation of X-ray equipment and auxiliary devices. Prerequisites: MAT 101, MAT III, or T-MAT 105. (W)

PHY 108 Physics 3 2 4

A course emphasizing the fundamentals of electrical and radiation physics and basic principles underlying the operation of X-ray equipment and auxiliary devices. Prerequisite: PHY 107. (S)

PHY 109 Radiologic Physics 3 2 4

A course to provide radiology technology students with a third quarter of radiologic physics as a science elective. To be offered during the summer months and will require the same text as the preceding two quarters. Covers radioactivity, artificial radionuclides, health physics, and special radiographic equipment. Prerequisites: MAT 101, PHY 107, and PHY 108. (D)

PHY 110 Ultrasound 3 2 4

A course to provide radiology technology students with one quarter of instruction in the physical principles underlying ultrasound diagnosis. To be offered during the summer months. Covers wave characteristics in general, properties of sound waves, ultrasound transducers, characteristics of ultrasound beams, interaction of ultrasound with matter, ultrasound imaging techniques, and Doppler techniques. Prerequisite: PHY 109. (D)

PHY 120 Energy: Sources, Needs, Hazards **3 2 4**

A course designed to increase the student's awareness of energy, both as a physical concept and as an economic issue. Covers topics including the properties, sources, and uses of energy; the economics of energy production; and the hazards associated with energy consumption. Students also learn how to perform energy conversion and cost calculations. Prerequisite: MAT 091. (D)

PHY 211 General Physics I **3 2 4**

A study of classical and modern physics in which the analytic approach is employed and calculus is used as needed. Mechancis, sound, and heat are included. (F)

PHY 212 General Physics II **3 2 4**

A continuation of PHY 211 including magnetism and electricity. Prerequisite: PHY 211. (W)

PHY 213 General Physics III **3 2 4**

A continuation of PHY 212 including light, optics, and modern physics. Prerequisite: PHY 212. (S)

PHY 1101 Applied Science **2 2 3**

An introduction to physical principles and their application in industry. Topics in this course include measurement; properties of solids, liquids and gases; and basic electrical principles. Prerequisite: MAT 1101. (W)

PHY 1101A Automotive Applied Science **2 2 3**

An introduction to physical principles and their applications in the automobile industry. Topics include measurement; properties of solids, liquids, and gases; and basic electrical principles. Prerequisite: MAT 1120. (W)

PHY 1101W Applied Science **2 2 3**

An introduction to the physical principles and their application to industry. Topics to be studied include measurement, properties of materials, mechanics, and basic electricity. Prerequisite: MAT 1101W. (S)

PHY 1102 Applied Science **2 2 3**

The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry and principles of force, motion, work, energy, and power. Prerequisite: PHY 1101. (S)

PHY 1102A Automotive Applied Science **2 2 3**

The second of two courses of applied physical principles. Topics include heat and thermometry, force, motion, work, energy, power, and simple machines. Prerequisite: PHY 1101A. (S)

POLITICAL SCIENCE

POL 201 American Federal Government **3 0 3**

A study of the structure and function of the national government with emphasis on current political affairs. (W)

POL 203 Government—State and Local 3 0 3

A study of state and local government, state-federal interrelationships, and the functions and prerogatives of the branches. Includes problems of administration, legal prodecures, law enforcement, police power, taxation, revenues, and appropriations. Special attention is given to North Carolina. (F)

PSYCHOLOGY

PSY 101 Personnal Development for Occupational Diploma Programs 1 2 2

A course dealing with a person's socialization process and his/her relationship to others. Contains an examination of one's personality development and his/her occupational/career interest. Relationships with customers and business associates may be emphasized for vocational programs. (F/W/S/SS)

PSY 201 General Psychology 3 0 3

A survey of psychology as the science of human behavior, to include theories and application of learning, physiological psychology, sensation and perception, individual differences, and social forces. (F/W/S/SS)

PSY 202 General Psychology 3 0 3

A continuation and expansion of PSY 201, to include group behavior, motivation, cognition, psychopathology, psychotherapy, and scientific methods. Prerequisite: PSY 201. (W/S/SS)

PSY 203 Psychology of Adolescence 3 0 3

An overview of social-psychological conditions of adolescence in the Western world. General areas covered are description of adolescence, formative influences, behavior settings and problem areas. (W/S)

PSY 204 Child Behavior 3 0 3

An application of social learning theory to child behavior with emphasis on the acquisition, retention, and extinction of behavior through preadolescence. (S)

PSY 205 Personality and Adjustment 3 0 3

The study of the whole person which permits the learner to review the varied psycho-social factors that influence personality development and maintenance while, at the same time, being given the opportunity to experience personal growth and increased awareness of his/her personal-social life. (D)

PSY 206 Interpersonal Skills 3 0 3

A course providing an opportunity for the learner to acquire self-management skills and to increase his/her level of competence in interactions with others. Specific areas covered are communications, conflicts, cooperation, use of social power, and the application of social learning principles. (F/W/S/SS)

PSY 209 Human Sexual Behavior 3 0 3

A study of physiological, social, and interpersonal aspects of sex and sexual behavior, to include the human sexual system, the sex act, attitudes and behavior, and love and intimancy. (D)

PSY 210 Human Growth and Development 3 0 3

A presentation of the interaction of maturational and environmental factors in the development of the individual from conception to death. Prerequisite: PSY 201. (F/W/S/SS)

PSY 213 Psychopathology **3 0 3**

An introduction to abnormal behavior—behavior that is detrimental to one's health, growth, or human functioning. Particular attention is given to personal-social interaction. Prerequisite: PSY 210.

PSY 215 Introduction to Exceptional Individuals **3 0 3**

A course designed to introduce the student to the exceptional or abnormal person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. To aid the student's understanding, scheduled trips to institutions for the retarded, mentally ill, deaf, and physically handicapped are an integral part of the course. Prerequisite: PSY 201. (W)

RADIOLOGY

RDT 101 Introduction to Radiologic Technology **2 0 2**

A course presenting an overall view of radiologic technology and the part radiology plays in medicine. Students become acquainted with the general structure of applied medicine. Includes good ethical principles and the responsibilities of an allied health professional. (F)

RDT 102 Basic Patient Care **3 3 4**

A course designed to present the student with the basic principles of patient care with particular emphasis on those procedures required in the radiology department. (F)

RDT 103 Radiation Protection I **1 0 1**

A course presenting the student with the basic principles of radiation protection as they apply to the patient, fellow workers, and the technologist. (F)

RDT 109 Introduction to Clinical Techniques **0 6 2**

An introduction to the hospital experience in which the student can expect to begin patient contact by transporting patients to and from the radiology department and dressing, instructing, and caring for them in the radiology department. The student will become competent in chest and abdominal radiography. (F)

RDT 110 Introduction to Radiographic Technique **1 2 2**

A very basic view of the exposure techniques used in radiographic procedures using the energized lab for demonstration. Also introduces radiographic accessories along with basic exposure computations. Prerequisites: RDT 101, RDT 103. (F)

RDT 111 Radiographic Procedures I—Extremities **6 2 7**

A study in terminology and basic principles of radiographic positioning. Covers the routine views for positioning the chest, abdomen, upper extremity, shoulder girdle, lower extremity, hips, and pelvis. The student gains experience working with radiographic phantoms in the energized lab. Prerequisite: RDT 102. (F)

RDT 112 Radiographic Evaluation **1 2 2**

A basic presentation of the controlling and influencing factors which affect each of the radiographic qualities. Includes learning to evaluate radiographic film characteristics. Prerequisite: RDT 110. (W)

RDT 113 Radiographic Procedures II—Skull and Spine **6 2 7**

A study in proper positioning of skull, sella turcica, petrous pyramids, coccyx, sacrum, the entire spine, the bony thorax, and soft tissue of the chest. Includes both routine and special views associated with each anatomical part. Prerequisite: RDT 111. (W)

RDT 114 Clinical Techniques I **0 15 5**

A course providing practical experience in the hospital, including processing of radiographs, patient care, ethical situations, and basic positioning of the upper and lower extremity, chest, abdomen, shoulder girdle, and pelvic girdle. Principles of radiographic exposure are applied by measuring each patient and utilizing a technique chart in order to set factors on the X-ray machine. Special emphasis is given to fluoroscopic procedures. Prerequisites: RDT 110, RDT 111. (W)

RDT 115 Radiographic Processing **1 2 2**

A course designed to present the student with the basic principles of processing with particular emphasis on automatic processing. Includes the use of intensifying screens. Prerequisite: RDT 112. (S)

RDT 116 Radiographic Procedures III—Trauma and GI Procedures **4 0 4**

A presentation of positioning for the immobile trauma patient, along with the procedures used to visualize the gastrointestinal tract. Prerequisite: RDT 113. (S)

RDT 117 Clinical Techniques II **0 24 8**

A course providing practical experience to improve skills in radiographic exposure, patient care contact, and routine positioning of the skull and entire spine. Special emphasis is placed on portable and surgical radiography. Prerequisites: RDT 112, RDT 113. (S)

RDT 118 Radiographic Procedures IV—Urinary and Reproductive Radiography **1 2 2**

A course focusing on radiography of the genitourinary system. Includes instruction on preparation of radiographic room, the patient, and the contrast media used in the procedures. Prerequisite: RDT 116. (SS)

RDT 119 Clinical Techniques III **0 24 8**

A course providing practical experience in emergency procedures, including all routine positioning; fluoroscopic, mobile, and surgical radiography; and exposure factors. Special emphasis is placed on patient handling in all phases of radiography.Prerequisites: RDT 115, RDT 166. (SS)

RDT 120 Imaging Modalities **3 0 3**

An introduction to the theory and application of imaging modalities other than radiography. (SS)

RDT 210 Radiographic Equipment and Accessories **3 0 3**

A course designed to correlate radiographic equipment with the physics of radiation. Presents an indepth study of radiographic tubes and generators. Prerequisite: RDT 115. (F)

RDT 211 Clinical Techniques IV 0 24 8

A course providing practical experience in the hospital and involving more advanced work in special procedures, radiation therapy, and nuclear medicine. A continuation of practice in all routine positioning, good darkroom techniques, proper radiographic techniques, radiation protection, and good patient care. Prerequisite: RDT 119. (F)

RDT 212 Radiographic Procedures V—Angiography 3 0 3

A course designed to present the student with information on special procedures and the special equipment and skills needed to perform them. Prerequisite: RDT 118. (F)

RDT 213 Principles of Exposure I 3 0 3

The first of two courses designed to develop a thorough working knowledge of the manipulation of exposure factors. Covers the basic principles needed to construct technique charts for all situations and kilovoltage ranges. Prerequisite: RDT 210. (W)

RDT 214 Clinical Techniques V 0 24 8

A course providing practical experiences in the hospital to include routine positioning of all body parts. Special emphasis is placed on radiography of the total digestive tract, urinary tract, reproductive, and tomographic examinations. Prerequisite: RDT 211. (W)

RDT 215 Radiographic Procedures VI—Pediatric and Dental 3 0 3

A course emphasizing pediatric and dental radiography and the principles of tomography. Also covers radiation protection as it applies to these areas. Prerequisite: RDT 212. (W)

RDT 216 Principles of Exposure II 2 2 3

The second of two courses designed to develop a complete and thorough working knowledge of the manipulation of exposure factors through the completion of problems and experiments. Prerequisite: RDT 213. (S)

RDT 217 Clinical Techniques VI 0 24 8

A course providing practical experience in the hospital and involving all radiographic positioning, good patient care, radiation protection, and manipulation of radiographic technical factors. Special emphasis is on mammography and pediatric and dental radiography. Prerequisite: RDT 216. (S)

RDT 218 Radiographic Procedures VII—Special Views of the Whole Skeleton 2 0 2

A course emphasizing special radiographic positioning of the entire skeleton. (S)

RDT 219 Radiation Protection II 2 0 2

An indepth study of radiation protection as it affects all modalities.Prerequisites: RDT 103, RDT 120, RDT 217. (SS)

RDT 220 Quality Control Seminar 2 2 3

A course designed to help the student recognize the difference between diagnostic and poor quality radiographs and learn how to maintain quality control. Prerequisite: RDT 216. (SS)

RDT 221 Clinical Techniques VII 0 24 8

A total overview of all positioning, exposure factors, and other related materials covered in the previous seven quarters. Special emphasis is placed on regular instructor-student clinical contact. Offered in the final quarter in the clinical facilities. Prerequisite: RDT 217. (SS)

READING

NOTE: Reading Proficiency Requirements

In the interest of helping students succeed in their chosen curricula, all entering students at Caldwell Community College and Technical Institute are tested for reading proficiency. Any student who does not have the required reading proficiency level for his/her curriculum shall be advised to enroll in the reading course which is closest to his/her independent reading level.

RDG 090 Basic Reading I 1 3 2

A course designed for students whose independent reading levels range from zero to fourth grade. Basic word recognition, word attack, comprehension, and oral reading are taught. Completion of this course does not earn credit toward a degree or diploma. Prerequisite: Reading Inventory. (F/W/S/SS)

RDG 091 Basic Reading II 1 3 2

A course designed for students whose independent reading levels range from fifth to sixth grade. Sight vocabulary, word attack, comprehension, and oral reading are taught. Completion of this course does not earn credit toward a degree or diploma. Prerequisite: Reading Inventory or RDG 090. (F/W/S/SS)

RDG 092 Basic Reading III 1 3 2

A course designed for students whose independent reading levels range from seventh to eighth grade. Intermediate vocabulary, word attack, comprehension, and study skills are taught. Beginning techniques for improving reading speed are introduced. Completion of this course earns credit only toward a vocational degree or diploma. Prerequisite: Reading Inventory or RDG 091. (F/W/S/SS)

RDG 093 Developmental Reading I 1 3 2

A course designed for students whose independent reading levels range from ninth to tenth grade. Vocabulary, word attack, comprehension, reading rate improvement, and study skills are taught. Completion of this course earns credit only toward a vocational or technical degree or diploma. Prerequisite: Reading Inventory or RDG 092. (F/W/S/SS)

RDG 101 Developmental Reading II 1 3 2

A course designed for students whose independent reading levels are tenth grade or above. Advanced vocabulary, word attack, comprehension, reading rate improvement, and study skills are taught. Prerequisite: Reading Inventory or RDG 093. (F/W/S/SS)

RECREATION

REC 101 Introduction to Recreation Services 5 0 5

A course introducing the student to the historical and philosophical foundation of recreation and leisure. The basic principles, the definition, and the impact and trends of recreation are presented. Emphasis on the different agencies providing recreational services is included with visitations being scheduled to public, private, industrial, and institutional recreational programs. (F)

REC 102 Recreation and Special Populations 3 0 3

A course designed to introduce the student to the exceptional person. It is the purpose of this course to develop a general knowledge of the different handicapping conditions, their causes, and limitations caused by the disability. To aid the students' understanding, scheduled trips to institutions for the retarded, mentally ill, deaf, and physically handicapped are an integral part of this course. (S)

REC 103 Recreation Programming 3 0 3

A study of the underlying principles for effective recreation programming. Includes an overview of the variety of program areas associated with recreation with attention given to the recreation interests and needs of the participants. Major objectives of this course are to provide the student with a basic knowledge to enable him to plan, organize, and provide leadership in program participation and to develop an understanding of the facilities and equipment necessary. This course also emphasizes the adaptation of activities and equipment for special groups. (W)

REC 104 Rehabilitation Services 3 0 3

A course designed to aid the students' understanding of the therapies in a rehabilitation service. Special emphasis is placed on the role of the recreation therapist and how it relates to occupational therapy, music therapy, industrial therapy, physical therapy, inhalation therapy, education therapy, and volunteer service. Considerable time is centered around guest speakers from the different therapies. (F)

REC 105 Areas and Facilities 3 0 3

A course exploring the different types of indoor and outdoor recreational areas and facilities and their use. The principles in planning, the dimensions and standards, maintenance, and operation of areas and facilities such as parks, playgrounds, ball fields, centers, tennis courts, swimming pools, and others are studied. Consideration is given to architectural barriers of areas and facilities needed by the handicapped participant. (S)

REC 106 Camping 5 0 5

A course designed to develop an understanding of the operation of a camping program. Particular course emphasis is placed on camping for the ill and handicapped and the architectural barriers which often exist. Operational concerns, varying from the use of volunteers to the maintenance of grounds, are covered in this course. (S)

REC 121 Social Recreation 3 0 3

A course to develop skill in planning social recreational activities. Party planning, special events, social games, quiet games, trips and picnics, and decorating are emphasized in this course. For practical experience, students have the opportunity to work with different age groups on community projects in social recreation. (W)

REC 202 Recreation Leadership 3 0 3

A course to build basic skills in working with people, an important asset to the recreation leader who daily works with program participants, volunteers, staff, and the public. This course focuses on the types of leadership, parliamentary procedure, role playing, interviewing, training and recruiting volunteers, and human relations. Students have the opportunity to observe community leaders and to evaluate their effectiveness. (W)

REC 203 Water Sports **1 4 3**

A course intended to develop an understanding of the values, objectives, and skills involved in a swimming and water sports program. Particular attention is given to swimming and water activities for children, adults, and the handicapped. The organizational and administrative aspects of a swimming program, teaching progressions and methods, and water games are included. The water skills are taught at a local pool. Students are afforded the opportunity to obtain a senior life saving certificate. (S)

REC 205 Outdoor Education **3 0 3**

An investigation of the history and significance of the outdoor education movement and an examination of current ideas and practices. Attention is focused on environmental problems, conservation, wildlife, nature, fisheries, and other ecological points of interest. Field trips supplement lectures. (S)

REC 208 Intramural and Sports Management **0 6 2**

The laboratory experience consists of the planning, direction, and evaluation of intramural and athletic programming in educational and residential settings. Special emphasis will be placed on sports officiating, sports skill instruction, publicity, and other related activities in administering a recreation program. (F/W/S/SS)

REC 209 Field Work **0 9 3**

A required nine hours of field placement to be completed during the fifth quarter of the recreation leadership curriculum. This field work is under the supervision of a professional worker in the specific area of interest. (W)

REC 210 Field Work **0 15 5**

The sixth quarter of the recreational leadership curriculum is primarily practical work experience in the student's chosen area of interest. Fifteen (15) hours of field work per week are devoted to this placement. This placement is under the direction of a full-time professional. (S)

REC 211 Recreation Seminar **1 0 1**

A course to prepare the student to become a professional recreation leader. Special emphasis is given to professional organizations, job applications, personal interviews, personal appearances, and interpersonal relationships. The recreation faculty coordinates this seminar. Prerequisite: completion of 5 successful quarters in the recreation leadership curriculum. (S)

REC 215 Dance **1 4 3**

A skill course designed to develop specific talents in the area of recreational dance. Activity sessions stress the different types of dances, the skills involved, and the techniques used in teaching dancing to different age groups. Appropriate dances with adaptations for the handicapped groups are also stressed. Adequate class time is used for student participation and practice. (F)

RELIGION

REL 201 Introduction to Old Testament 3 0 3

An examination of history, literature, and religious ideas of the Ancient Near East as reflected in the Old Testament. (F/W)

REL 202 Introduction to New Testament 3 0 3

A critical examination of the rise and spread of the Christian faith as recorded in the New Testament with special emphasis in the ministries of Jesus and Paul. (W/S)

REL 203 World Religion 3 0 3

An introduction to the major religions of the world, including Hinduism, Buddhism, Confuciansim, Taoism, Judaism, Islam, and Christianity, based on their history, literature, teachings, and present day practices. (F/W/S/SS)

REL 204 Religion in America 4 0 4

An objective study of religion movements in America today to include traditional and ethnic religions, supernatural phenomena, cults, generalized as well as non-religious concepts. The course is designed to be flexible in order to include current religious trends as they evolve. (D)

SCIENCE-ENVIRONMENTAL

SCI 100 Natural Environment 3 0 3

A survey course combining the general areas of biology, chemistry, and physics. The content is intended to relate these three areas to each other as they influence everday living.

SOCIOLOGY

SOC 101 Community Resources 3 0 3

A study of the services extended to families in the local, state, and federal community with emphasis placed on one's being able to recognize and use local, state, and federal resources in achieving families' goals and implementing their value system.

SOC 201 Introduction to Sociology 3 0 3

A study of the fundamental principles and concepts of sociology with emphasis on contemporary American institutions in relation to technological change, ethnic groups, population trends, and social control. (F/S/SS)

SOC 203 Contemporary Problems and Social Issues 3 0 3

A critical analysis of some of the major current social issues and problems in American society. (S/SS)

SOC 205 Marriage and the Family 3 0 3

A study of family relationships, their forms and functions. Included in this study are cultural patterns, mate selection, sex roles, marital adjustment and maladjustment, child rearing, and the future of the American family. (F/W/S/SS)

SOC 206 Sociology 3 0 3

A course dealing with the changing sex roles in America today. The male and female roles are studied in terms of personality, communication skills, intelligence, socialization, status achievements, power, politics, and physical abilities. The purpose of the course is to examine sex roles as they affect or are affected by the total society. (D)

SPANISH

SPA 101 Elementary Spanish **3 2 4**

A study of the basic elements of Spanish with emphasis on listening comprehension, oral communication, pronunciation, and grammar. The beginning sequence is designed for students with fewer than two years of high school Spanish. A two-hour lab is required for beginning levels. (F)

SPA 102 Elementary Spanish **3 2 4**

A continuation of Spanish 101. Prerequisite: SPA 101. (W)

SPA 103 Elementary Spanish **3 2 4**

A study of verb tenses, vocabulary, and sentence patterns with emphasis on understanding and speaking the language. Prerequisite: SPA 102. (S)

SPA 201 Intermediate Spanish **3 0 3**

A continuation of the study of Spanish with emphasis on oral communication, reading, writing, culture, and history. A lab is provided for those in intermediate levels needing or desiring extra work. Prerequisite: SPA 103 or two years of high school Spanish and approval of instructor. (F)

SPA 202 Intermediate Spanish **3 0 3**

A continuation of intermediate Spanish with emphasis on listening and understanding, speaking, reading, and writing. Prerequisite: SPA 201. (W)

SPA 203 Intermediate Spanish **3 0 3**

A continuation of intermediate Spanish with emphasis on the four basic skills and on grammar. Prerequisite: SPA 202. (S)

SPA 211, 212, 213 Advanced Spanish **3 2 3**

A sequence of courses conducted in the language, stressing the culture and history of Spanish, principally as reflected in the literature. Emphasis is on advanced composition and reading of selections from Spanish literature. Prerequisite: SPA 203. (D)

SPEECH

SPH 100 Interpersonal Communication **3 0 3**

A course to help the student develop speaking skills in informal speaking situations. Emphasis will be placed on improving one's self-concept in relation to communication and working toward overcoming self-consciousness. Emphasis is placed on the communication process, interpersonal communication, non-verbal communication, and participating in small groups. (F)

SPH 101 Fundamentals of Speech **3 0 3**

A study of oral communication with emphasis on speech theory, speech composition, preparation, and presentation. (F/W/S/SS)

UPHOLSTERY

UPH 1111 Upholstery Materials and Methods I **1 11 5**

A study of the history and periods of furniture. Includes tools and equipment, hammer technique, staple gun technique, spring up methods, and webbing and burlap application. (D)

UPH 1112 Upholstery Materials and Methods II **1 11 5**

A continuation of UPH 1111 and basic methods for inside and outside upholstery and cushion styles. Prerequisite: UPH 1111. (D)

UPH 1113 Upholstery Materials and Methods III **1 11 5**

A course in the styles of furniture, including sofas, love seats, and recliners. Covers techniques in trimming band tufting and piping with continuous practice in these areas. Prerequisite: UPH 1112. (D)

UPH 1114 Upholstery Sewing I **1 11 5**

A study of upholstery sewing. Includes basic operations of the sewing machine and simple sewing techniques. (D)

UPH 1115 Upholstery Sewing II **1 11 5**

A course covering advanced upholstery sewing, sewing matched stripes, making patterns, and other sewing techniques. Prerequisite: UPH 1114. (D)

UPH 1116 Upholstery Cutting I **1 11 5**

A course providing job experience devoted to basic cutting techniques, how to measure frames, cutting with shears, and lay cutting. (D)

UPH 1117 Upholstery Cutting II **1 11 5**

A course in making patterns, cutting matched patterns, and lining up and cutting striped patterns. Prerequisite: UPH 1116. (D)

WELDING

WLD 101 Welding Practices **3 0 3**

A course of study designed to acquaint the student with the fundamentals of shop safety, shop procedures, and tool and welding machine use and care. Study of welding theory, techniques, and machines is limited to nomenclature and function as it relates to proper welding knowledge of application and technique. During the course, knowledge and skill development include welding equipment and tools, oxyacetylene welding, gas welding of various type joints, and selection of proper welding materials used in the gas process. Related instruction develops symbol recognition. (F)

WLD 120 Welding, Oxyacetylene **1 3 2**

An introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Covers welding procedures such as practice in puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead position, brazing, and hard and soft soldering. Safety procedures in the use of tools and equipment are stressed through the program of instruction. The student performs mechanical testing and inspection to determine quality of the welds. (F/W/S)

WLD 121 Arc Welding **1 3 2**

A study of the operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect weaknesses in welding. Safety procedures in the use of tools and equipment are emphasized throughout the course. (S)

WLD 122 Commercial and Industrial Practice **2 3 3**

A course designed to build skills through practices in simulated and actual industrial processes and techniques. Includes sketching and layout on paper the size and shape description, listing the procedure steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection. Prerequisites: WLD 120, WLD 121. (F/S)

WLD 1101 Auto Body Welding **1 3 2**

A course providing welding demonstrations by the instructor and practice by students in the welding shop. Includes safe and correct methods of assembling and operating the welding equipment. Practice is given for bronze welding, fusion welding, fillet welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work. (F)

WLD 1112 Welding Codes and Inspection **3 0 3**

An introduction to the various types of tests and testing procedures used in testing the quality of the weld. Students perform the details of the test which gives adequate information on the quality of the weld. Tests to be performed include guided bend, tensile, magnetic partical, dye penetrant, X-ray, and hardness. Various sections of codes AWS, ASME, and API are studied according to the student's interest. (F)

WLD 1120 Welding Theory and Practice I **3 12 7**

A course dealing with the orientation to all oxyacetylene, shielded ARC shop equipment. Includes basic fundamentals of equipment set-up, safety demonstrations, practice procedures with group and individual demonstrations by the instructor. (F)

WLD 1120-1 (Part-time) **2 6 4**

WLD 1120-2 (Part-time) **1 6 3**

WLD 1121 Welding Theory and Practice II **2 18 8**

A course providing the student with a thorough understanding of ARC welding fundamentals and safety. Manual skills are developed to produce high quality ARC welds in all positions on mild steel. (W)

WLD 1121-1 (Part-time) **1 6 3**

WLD 1121-2 (Part-time) **1 6 3**

WLD 1121-3 (Part-time) **0 6 2**

WLD 1122 Commercial and Industrial Practice **3 9 6**

A course designed to build skills through practices in simulated and actual industrial processes and techniques. Includes sketching and layout on paper the size and shape description, listing the procedure steps necessary to build the product, estimating time and material, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection.Prerequisites: WLD 1120, WLD 1121. (SS)

WLD 1122-1 (Part-time) 2 6 4

WLD 1122-2 (Part-time) 1 3 2

WLD 1123-1 Inert Gas Welding I (TIG) 2 6 4

A course providing the student with a thorough understanding of tungsten inert gas ARC welding fundamentals and safety. Provides training to develop the manual skill necessary to make high quality welds in all positions. Prerequisite: WLD 1121. (S)

WLD 1123-2 Inert Gas Welding II (MIG) 2 6 4

A course providing the student with a thorough understanding of metallic inert gas welding fundamentals and safety. Provides training to develop the manual skills necessary to make high quality welds in all positions. (SS)

WLD 1124 Pipe Welding 3 12 7

A course designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the ASME code. Prerequisite: WLD 1121. (S)

WLD 1124-1 (Part-time) 2 6 4

WLD 1124-2 (Part-time) 1 6 3

WLD 1125 Certification Practices 3 6 5

A course involving practice in welding the various materials to meet certification standards. The student uses various tests, including the guided bend and the tensile strength tests, to check the quality of his/her work. Emphasis is placed on attaining skill in producing quality welds. Prerequisites: WLD 1121, WLD 1124. (SS)

WLD 1126 Advanced Metal Inert Gas Welding 2 8 5

An intensive study of advanced metal inert gas welding with emphasis on both production and general uses of this process. Studies are made in wire types, size, and selection. The student works with this type machine exclusively, with practice in low and high carbon steels, stainless steels, and aluminum. Shielding gases used include carbon dioxide, argon, and various mixtures. Prerequisite: WLD 1123. (D)

WLD 1129 Basic Welding 1 3 2

A study of the basic characteristics of metals, equipment, and its construction and operation presented by means of audiovisuals and other educational media. Includes welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating gas and arc welding equipment are stressed. Practice is given in surface welding, bronze welding, silver-soldering, and flame-cutting and arc welding methods applicable to mechanical repair work. (F)

WLD 1130 Auto Body Welding 1 3 2

A course providing welding instruction and shop demonstrations in modern welding methods used by mechanics and auto body repairmen to fabricate steel and to maintain the equipment. The student learns procedures and techniques of joining frame members, supporting members, struts, braces, and other parts according to approved practices. (W)

WLD 1131 Design of Welded Structures 3 6 5

A study of proper procedures used in the welding industry for fabrication and reinforcement. The student works with various methods of reinforcement and placement of reinforcing members. Studies are made of strengths of various metals, both ferrous and nonferrous. Prerequisite: WLD 1122 or approval of instructor. (D)

WLD 1132 Advanced Tungsten Inert Gas Welding 2 8 5

A course consisting of working exclusively with this process with emphasis on proper selection of materials, filler rod, shielding gases, and electrode manipulation. There are exercises in cost estimating and job estimating. The majority of the work is in nonferrous metals. Prerequisite: WLD 1123. (D)

WLD 1133 Operations of the Job Shop 5 3 6

A course dealing with the problems that are unique in the job shop. There are exercises in job estimating and cost estimating. Studies are made in material procurement and handling. Proper procedure for bidding on jobs is stressed. Prerequisite: WLD 1123. (D)

WLD 1134 Welding Power Supplies 3 1 3

A study of alternating current, direct current, and combination welding power supplies. Studies are also made of portable motor generator units. High frequency and remote control power supplies are covered, with exercises in machine selection to match the operation to be performed. Prerequisite: WLD 1121. (D)

CONTINUING EDUCATION PROGRAMS

GENERAL INFORMATION

WHAT IS IT?

Continuing Education provides an opportunity to:
(1) Finish high school
(2) Upgrade and improve present job skills
(3) Be trained while on the job
(4) Prepare for future employment
(5) Learn new hobbies and develop creative skills or talents for leisure activities
(6) Learn better home maintenance and repair techniques.

The continuing education department of Caldwell Community College and Technical Institute is an outreach service for Caldwell and Watauga counties. The program is designed to meet the needs and desires of the community by offering a wide variety of subjects taught at convenient hours in convenient locations in Caldwell and Watauga counties.

WHO CAN ENROLL?

Any individual who is 18 years of age or whose regular high school class has graduated. Persons between 16 and 18 years old who have special needs may enroll if they have the WRITTEN PERMISSION of the school system last attended. (Under certain conditions, the policy on page 9 will apply.)

WHAT DOES IT COST?

Most courses require a non-refundable $8 registration fee. Some courses, such as adult basic education, are free. Any charges should be paid at the first class session. Textbooks or special materials may be purchased from the campus bookstore.

HOW CAN I ENROLL?

Persons can register for a class by attending the first session. Applicants are usually admitted on the "first come, first served" basis.

HOW LONG DO COURSES LAST?

Most courses last approximately 10 to 11 weeks, depending on the nature of the course.

WHERE ARE CLASSES HELD?

Adult classes are held anywhere in Caldwell and Watauga counties where there are adequate facilities and equipment. In addition to the college campus, classes are held in community centers, public school buildings, churches, businesses, factories, and private homes.

WHEN ARE CLASSES HELD?

Day and evening classes are usually scheduled on a quarterly basis. Most classes meet once or twice a week, Monday through Friday, until the end of the course.

HOW DO I KNOW WHEN A COURSE I WANT IS OFFERED?

Information about classes is released each quarter through the local news media. Quarterly schedules are published and distributed by the college.

Information concerning course offerings may be obtained by calling the continuing education department at 396-3311 (Granite Falls), or 728-4323 (Lenoir), or 297-2185 (Boone).

WHAT CREDIT CAN I GET?

Most continuing education courses are noncredit. However, continuing education units (CEU) will be given for certain courses. These courses are designated and advertised as giving CEU credit prior to each quarter.

WHAT COURSES ARE OFFERED?

A partial list and description of courses available are listed in this catalog. However, if 12 or more people are interested in a subject not listed and a qualified instructor and suitable space are available, Caldwell Community College and Technical Institute will be happy to offer the course.

ADULT HIGH SCHOOL DIPLOMA PROGRAM

The adult high school diploma program is designed to give adults who have less than a twelfth-grade education another opportunity to finish high school. This program is not designed to compete with regular high school programs.

WHAT DOES IT COST?

There is no registration fee. Books, materials, and supplies may be purchased for a small fee.

WHO CAN ENROLL?

Adults 18 years of age who are not currently enrolled in any public school may enroll in the program. Students 16 and 17 years of age may enroll if they have a referral from an official of the last school system attended. (Under certain circumstances the policy on page 9 will apply.)

DO I NEED A TRANSCRIPT?

Since adult high school classes do not operate on a unit system, the adult student is **not** required to submit a transcript of high school records.

HOW LONG WILL IT TAKE TO GRADUATE?

Adults may progress at their own rate of speed and earn a high school diploma by satisfactory performance on the high school equivalency tests.

WHO AWARDS THE DIPLOMA?

Through cooperation between Caldwell Community College and Technical Institute and the Caldwell and Watauga County Boards of Education, the adult high school diploma is awarded after the adult has passed the required tests in English, math, science, and social studies.

ADULT BASIC EDUCATION

WHAT IS IT?

The adult basic education program is designed to improve an adult's ability to speak, read, and write the English language. Other areas such as arithmetic, science, and social studies are included in the program. It provides pre-high school level instruction. All materials have been especially prepared for adults with emphasis on individual needs and interests.

WHO CAN ENROLL?

Adults 18 years of age who are not currently enrolled in any public school may enroll in the program. Students 16 and 17 years of age may enroll if they have a referral from an official of the last school system attended. (Under certain circumstances the policy on page 9 will apply.)

HOW CAN I ENROLL?

Call or write the continuing education department of Caldwell Community College and Technical Institute.

WHAT DOES IT COST?

All classes, books, materials, and supplies for this program are free.

WHERE ARE CLASSES HELD?

Classes are held in various locations in Caldwell and Watauga counties. New classes may be started with 8 to 10 students if a qualified instructor and suitable space are available.

WHEN ARE CLASSES HELD?

Classes are usually held twice a week, either day or evening. Adult basic education classes are held on a continuing basis. Interested persons should contact the continuing education department for further information.

ADVANCEMENT LABORATORY

The advancement laboratory is a study center where students use self-teaching materials to:

1. Prepare for and take the high school diploma examination
2. Prepare for and take the GED (General Educational Development) test
3. Work through elementary to high school level
4. Upgrade skills in specific subject areas
5. Overcome deficiencies in subjects needed for college entrance
6. Study in areas of general interest

Advancement lab personnel are available to assist those needing help and to administer required testing.

WHAT DOES IT COST?

No fee is charged for studying in the advancement laboratory. Books and materials are provided; however they may be purchased for a small fee.

WHEN AND WHERE?

The lab is on the college campus and is open from 8:00 a.m. to 9:00 p.m., Monday through Thursday. On Friday, it is open from 8:00 a.m. to 5:00 p.m.

WHO CAN ENTER?

Adults who are 18 years of age or older. Students 16 or 17 years of age must have a referral from an official of the Extended School Day Program or last school system attended if not in Caldwell County. (Under certain circumstances, the policy on page 9 will apply.)

COURSES AVAILABLE IN THE ADVANCEMENT LAB*

READING AND ENGLISH
Reading Laboratories
Effective Reading
Study Skills Library
Grammar
Vocabulary
Literature
Business Letters
Communication Skills
Spelling
Phonics

SOCIAL STUDIES
United States Geography
United States History
American Government
How a Bill Becomes a Law
The Constitution

SCIENCE
Anatomy and Physiology
Biology and Chemistry
Principles of Chemistry
Medical Terminology
Work and Machines
Physics
Vectors
Meterology and Astronomy

MATHEMATICS
Basic Mathematics
Algebra
Geometry
Trigonometry
Trigonometry
Logarithms
Computing Square Roots
Introductory Calculus
The Slide Rule
Introduction to Probability
Think Metric

BUSINESS
Business Mathematics
Basic Filing
Bookkeeping
Accounting Fundamentals
Gregg Shorthand
Typing

FOREIGN LANGUAGE
French
Spanish
German

GENERAL INTEREST
Effective Listening
Effective Notetaking
Psychology
Introductory Sociology
How to Prepare For:
  Civil Service Exam
  Graduate Records Exam
  Miller Analogies Test
  National Teachers Exam-
    Commons

**This is only a partial listing of courses available in the advancement laboratory.*

PRE-JOB PROGRAM

WHAT IS IT?

The Pre-Job program is designed to instruct individuals in how and where to look for employment suited to their interests and skills. The program offers opportunities to those who seek self-improvement and successful employment. It also provides an opportunity for persons to continue their education.

The main topics covered in the program are:

1. How to find a suitable job and the interviewing skills needed to obtain the job
2. How to develop confidence, positive attitudes, and communication skills
3. How to manage personal finances
4. Job placement assistance after completion of the program

WHO CAN ENROLL?

Unemployed or underemployed high school graduates or dropouts between the ages of 18 and 65 who are physically and mentally capable of gainful employment.

WHAT DOES IT COST?

A non-refundable $8 registration fee is charged at the beginning of the class.

WHERE ARE CLASSES HELD?

The Pre-Job center on the Caldwell Community College and Technical Institute campus.

WHOM DO I CONTACT?

WRITE: Pre-Job Center
Caldwell Community College and
Technical Institute
1000 Hickory Boulevard
Hudson, North Carolina 28638
CALL: (704) 728-4323 or 396-3311, Ext. 272

GENERAL ADULT OFFERINGS

Numerous continuing education noncredit classes are offered under the heading of general adult education. Many of these classes are taught off campus in recreation centers, schools, churches, and in a few instances, private homes.

General adult courses fall into the broad categories of the arts, crafts, job training and upgrading, practical personal skills, and special needs courses such as sign language for the deaf and driver's education for adults.

Special programs usually available on an annual basis include Great Decisions, social issues, comparative religions, and projects funded by the North Carolina Endowment for the Humanities.

HOME ECONOMICS

Caldwell Community College and Technical Institute offers varied courses in the home economics area. Training and education courses are provided for the individual and the professional. Among general interest courses offered are the following:

- Clothing and Textiles
  - Beginning Sewing
  - General Sewing
  - Tailoring
  - English Smocking
  - Children's Clothing Construction
  - Sewing Clinic
  - Clothing and Pattern Alterations
  - Lap Quilting
  - Applique
  - Patchwork
- Foods and Nutrition
  - Microwave Cooking
  - Mexican Cookery
  - Vegetable Cookery
  - Breadmaking
  - Holiday Cooking
  - Japanese Cooking
  - Chinese Cooking
  - Buffets and Entertaining
  - Diabetic Cookery
  - Diet and Weight Control
  - Party Foods
- House and Home Furnishings
  - History of Furniture
  - Interior Design
  - Floral Arranging
  - Use and Care of House Plants

EARLY CHILDHOOD AND PARENT EDUCATION

Caldwell Community College and Technical Institute offers a certificate program in early childhood education and a wide variety of courses in parent/family

education. Among courses included in these areas are the following:

- Lamaze
- Pre-natal and Infant Care
- Parenting of Pre-Schoolers
- Working with the Young Child
- Early Childhood Education
- Child Nutrition and Behavior
- Parent Effectiveness Training
- Learning Through Play
- Math, Language, Science and Music in Early Childhood
- Adolescent Sexuality
- Small Group Approach to Growth and Learning
- Discipline Through Glasser
- Coping With Hyperactivity

The program is designed for preschool assistants and parents.

TEACHERS' CERTIFICATE RENEWAL

Teachers' certificate renewal courses are provided in Caldwell and Watauga counties in cooperation with the local public schools. Students receive one credit toward certificate renewal for each 10 hours of successfully completed work. Course offerings have included:

- Mental Health in the Classroom
- Metric System
- Teaching the Exceptional Child
- Astronomy
- Minority Awareness
- History of Caldwell County
- Sports Medicine
- Communication Skills
- Drug Abuse/Use
- Education and Society
- Great Decisions
- Career Education
- Modern Novel
- Industrial Articulation
- Environmental Curriculum
- Value Clarification

MANAGEMENT DEVELOPMENT PROGRAM

The management development program offered by Caldwell Community College and Technical Institute is designed to give the new manager or supervisor a headstart and to make a good manager better. The program is based on individual development instead of tests and grades. Managers and future managers should enroll in the program with the idea of improving their management skills.

Classes will be scheduled on a regular basis day or night, in the plant or at the college. Interested persons may preregister by calling the department of continuing education. Tuition is $8 and there may be a small charge for books, materials, and supplies.

Each person completing 150 hours of instruction will receive a diploma in management development. An individual could earn the diploma in approximately one year by attending class one night per week during that year. Course offerings have included:

Art of Motivating People
Principles of Supervision
OSHA and First Aid
Human Relations and Motivation
Effective Communications
Economics and Controlling
Job Instruction Training
Labor Laws for Supervisors
Effective Writing
Effective Speaking
Speed Reading
Creative Thinking
Job Analysis Training
Employee Evaluation and Interviewing
Motion and Time Study

NEW AND EXPANDING INDUSTRY TRAINING

One of the basic objectives of Caldwell Community College and Technical Institute is to stimulate the creation of more challenging and rewarding jobs. In the endeavor to accomplish this objective, the college provides a training service for new and expanding industries in the community.

Subject to minimal limitations, the college, in cooperation with the Industrial Service Division of the N.C. Department of Community Colleges, will design and administer a special program for training the production manpower required by any new and expanding industry creating new job opportunities in North Carolina.

The major purposes of this program are to help new or expanding industry meet immediate manpower needs and to encourage industry to develop long-range training programs to satisfy continuing replacement and retraining needs.

The program includes:

1. Consultation in planning training program needs
2. Selection and training of instructors who may be recruited from the company and/or outside sources
3. Payment of instructors' wages
4. Provision of suitable space for a temporary training facility
5. Assumption of installation costs of equipment in temporary training facility
6. Payment of one-half the cost of nonsalvageable materials expended in the training program.

SKILL TRAINING PROGRAMS

Caldwell Community College and Technical Institute's continuing education division offers courses designed either to upgrade job skills, to help persons develop new skills so that they may become more proficient in their vocation, or to train persons in new occupations, vocations, or job skills.

The courses are offered at a time and place convenient for the students, based on the availability of the number of students, the facilities, and necessary equipment. These courses can also be offered in a plant or other places of business where certain skill training is needed.

Skill courses that may be offered by the institution cover a wide area of skills from office to plant.

APPRENTICESHIP PROGRAM

The apprenticeship program has been recognized as one of the leading methods for acquiring the skills and knowledge necessary to become job-skilled craftsmen. Apprenticeship programs are usually on-the-job training with related instruction. CCC & TI, in cooperation with the Apprenticeship Division of the North Carolina Department of Labor, Business and Industry, provides the related instruction for the apprenticeship. The college coordinates and conducts the related instruction for both registered and non-registered apprentices.

The apprentice may attend the classroom portion of training during the day or evening when the desired classes are offered. Some of the courses may be studied in the programmed method in the individualized instruction program.

An individual desiring entrance into such a program should consult his/her employer, apprenticeship representative, or the coordinator of industry programs at CCC & TI.

APPRENTICE LINEMAN'S TRAINING PROGRAM

The apprentice lineman's training program is designed to provide job training to men and women who work in public electric utilities, private electric utilities, telephone companies, municipalities, electric cooperatives, and other related lineman groups.

Listed below are the types of courses that are taught in the lineman's training school at Caldwell Community College and Technical Institute. Most of these classes consist of 40 hours of training and are usually completed in one week.

Apprentice Lineman I
Apprentice Lineman II
Apprentice Lineman III
Apprentice Lineman IV
Advanced Bucket School
Advanced Hot Stick School
Transformer School
Staking School
Underground Cable School

HEALTH RELATED TRAINING

The department of continuing education of Caldwell Community College and Technical Institute offers special courses in nursing and other health related occupations to the local community. Many of these special programs are administered in cooperation with the area health institutions and agencies. Course offerings have included:

Standard First Aid
CPR (Cardio-pulmonary Resusitation)
Nursing Assistant
Health Care Technician
R.N. Refresher Courses
R.N. Management Training

Medical Terminology
Audio-Metric Testing
EMT (Emergency Medical Technician)
Paramedic Training
Geriatrics Assistant
Coronary Care
Pediatric Nursing
N.C. Board of Nursing R.N. Exam Review

SPECIAL NEEDS PROGRAMS

To meet the total educational needs of the community, Caldwell Community College and Technical Institute's department of continuing education offers courses for "special populations." Classes are conducted in sheltered workshops, rest homes, nursing homes, senior centers, treatment centers, prisons, and varied other meeting places where persons with special needs are located.

The types of classes offered are directly related to the needs of each group but, overall, represent a wide variety of offerings. These have included auto mechanics, small engine repair, activity coordination, crafts, proper grooming and hygiene, driver's training, woodworking, quilting, group speech therapy, culinary arts, reality orientation, certification in activity coordination, alcohol and drug abuse, nutrition, basic home living skills, and job readiness.

FIRE SERVICE TRAINING

Caldwell Community College and Technical Institute offers fire service training to both volunteer and career firemen. This training program is designed to increase firemen's technical knowledge, to train fire service personnel in the latest techniques and methods of fire fighting, to improve their skills in fire-ground operations, and to expose them to a variety of fire situation experiences.

The training program is taken directly to the individual fireman. Training sessions are held in local fire departments allowing the individual to be trained as an organized group utilizing equipment they would ordinarily use in controlling fire.

A certificate is awarded to each person successfully completing the course. Course offerings have included:

Industrial Fire Brigade
Portable Fire Extinguisher
Business Fire Safety
Firemanship Training (Beginning and Advanced)
Fire Apparatus
Hose Practice
Breathing Apparatus
Home Fire Safety
Pump Schools
Rope Practices

POLICE SCIENCE

Caldwell Community College and Technical Institute offers police science training to personnel of law enforcement agencies. The goal is to promote and provide adequate training and education courses in legal and technological fields that will keep law enforcement officers abreast of advancements in law enforcement techniques.

North Carolina State Law requires that new police officers complete 160 hours of police science training within one year after employment. These courses are offered annually by the college. Courses are also offered to those officers who wish to upgrade job skills.

A certificate is issued upon completion of each course but credit cannot be transferred and applied toward an associate in applied science degree. Course offerings have included:

Police Report Writing
Police Firearms Training
Police Science I
Police Science II
Weapons Safety
Police Communications/Radio
Introduction to Criminal Investigation
Jail School
Laws of Arrest
Inmate Counseling
Civil Disorder
Cartridge Reloading
History of Constitutional Law
Chemical Tests/Alcohol

ADDITIONAL COURSES

If 12 or more people want to learn about a subject which is not currently offered, the college will make every effort to find a qualified instructor and offer the course anywhere in Caldwell or Watauga counties where suitable space is available. Requests may be made by calling the continuing education department 728-4323 (Lenoir), 396-3311 (Granite Falls— Hickory), or 297-2185 (Boone).

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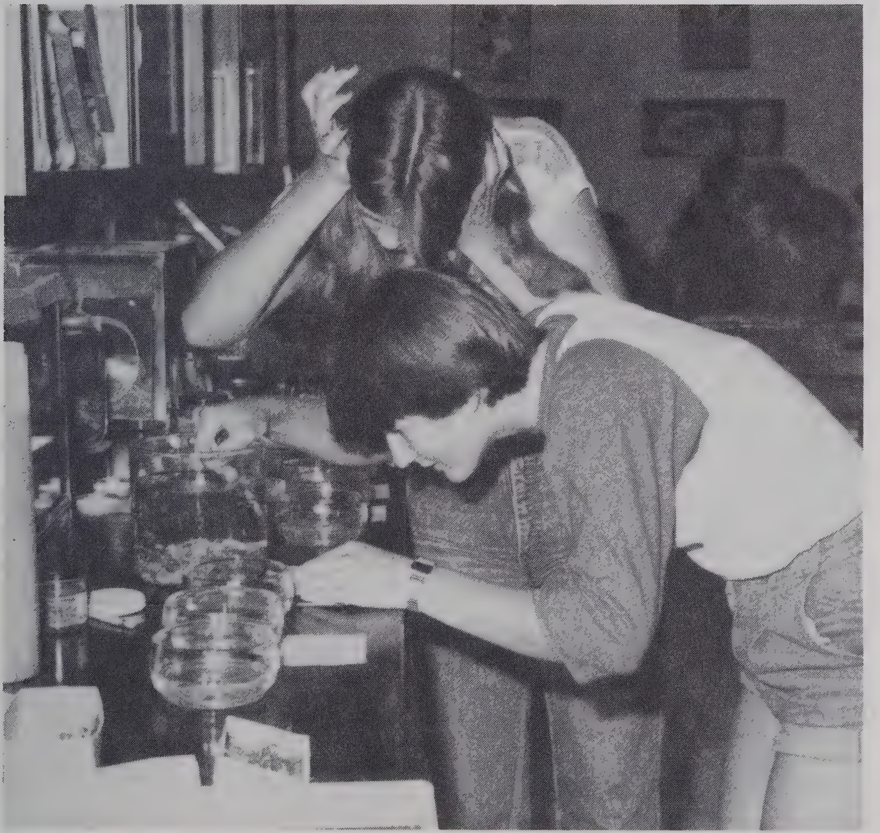

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